DENR USE ONLY: ☐ Paper Report ☐ Electronic Data - Email CD (data loaded: Yes / No) Doc/Event #: 4394

NC DENR
Division of Waste Management - Solid Waste

Environmental Monitoring Reporting Form

Notice: This form and any information attached to it are "Public Records" as defined in NC General Statute 132-1. As such, these documents are available for inspection and examination by any person upon request (NC General Statute 132-6).

Instructions:

- **Prepare one form for each individually monitored unit.**
- **Please type or print legibly.**
- Attach a notification table with values that attain or exceed NC 2L groundwater standards or NC 2B surface water standards. The notification must include a preliminary analysis of the cause and significance of each value. (e.g. naturally occurring, off-site source, pre-existing condition, etc.).
- Attach a notification table of any groundwater or surface water values that equal or exceed the reporting limits.
- Attach a notification table of any methane gas values that attain or exceed explosive gas levels. This includes any structures on or nearby the facility (NCAC 13B .1629 (4)(a)(i).
- In accordance with NC General Statutes Chapter 89C and 89E and NC Solid Waste Management Rules 15A NCAC 13B, be sure to affix a seal to the bottom of this page, when applicable.
- Send the original signed and sealed form, any tables, and Electronic Data Deliverable to: Compliance Unit, NCDENR-DWM, Solid Waste Section, 1646 Mail Service Center, Raleigh, NC 27699-1646.

Solid Waste Monitoring Data Submittal Information

Name of entity submitting data (laboratory, consultant, facility owner):

PREMO GROUP INC. (CONSULTANT)

Contact for questions about data formatting. Include data preparer's name, telephone number and E-mail address:

Name: Patrick Kelley Phone: 770-973-2100 x 2860

E-mail: pkelley@premiercorp-usa.com

Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
Low Ground Landfill Roanoke Rapids, NC	100 Gaston Rd. Roanoke Rapids, NC	42 03	.0500	November 14, 2007

Environmental Status: (Check all that apply)

☐ Initial/Background Monitoring ☒ Detection Monitoring ☐ Assessment Monitoring ☐ Corrective Action

Type of data submitted: (Check all that apply)

☒ Groundwater monitoring data from monitoring wells
☐ Groundwater monitoring data from private water supply wells
☐ Leachate monitoring data
☐ Surface water monitoring data
☐ Methane gas monitoring data
☐ Corrective action data (specify) _____
☐ Other(specify)

Notification attached?

☐ No. No groundwater or surface water standards were exceeded.
☒ Yes, a notification of values exceeding a groundwater or surface water standard is attached. It includes a list of groundwater and surface water monitoring points, dates, analytical values, NC 2L groundwater standard, NC 2B surface water standard or NC Solid Waste GWPS and preliminary analysis of the cause and significance of any concentration.
☐ Yes, a notification of values exceeding an explosive methane gas limit is attached. It includes the methane monitoring points, dates, sample values and explosive methane gas limits.

Certification

To the best of my knowledge, the information reported and statements made on this data submittal and attachments are true and correct. Furthermore, I have attached complete notification of any sampling values meeting or exceeding groundwater standards or explosive gas levels, and a preliminary analysis of the cause and significance of concentrations exceeding groundwater standards. I am aware that there are significant penalties for making any false statement, representation, or certification including the possibility of a fine and imprisonment.

Patrick Kelley — Facility Representative Name (Print)

Project Manager — Title

770-973-2100 — (Area Code) Telephone Number

Patrick Kelley — Signature

2/29/08 — Date

Affix NC Licensed/ Professional Geologist/Engineer Seal here:

NORTH CAROLINA LICENSED SEAL 2107 GEOLOGIST PETER E. RAMSEY

Revised 01/2007

PREMO GROUP INC

1880 West Oak Parkway
Building 100, Suite 106
Marietta, GA 30062

Phone 770.973.2100
Fax 770.973.7395
www.premoteam.com

April 17, 2008

Don Heardon
Compliance Unit
NCDENR-DVM, Solid Waste Section
1646 Mail Service Center
Raleigh, NC 27699-1646

RE: Facility Permit # 4203
Low Ground Landfill Semi-annual Environmental Monitoring Report
Roanoke Rapids, NC

Dear Mr. Heardon;

On behalf of International Paper, PREMO Group Inc. (PREMO) is submitting the attached Semi-annual Environmental Monitoring Report for the November 2007 sampling event at the above referenced site. Also enclosed is the North Carolina (NC) Solid Waste Section summary table along with the laboratory report from Columbia Analytical Services, and the PREMO Quality Assurance Review of the laboratory data.

The November 2007 sampling activities were conducted by URS Corporation under contract with PREMO. Depth to groundwater measurements were obtained from the five site monitoring wells (MWLG-1, MWLG-3, MWLG-5, MWLG-6, and MWLG-7), and the monitoring wells were then purged and sampled according to EPA protocol. Copies of the field sampling forms completed by URS personnel are attached to this report. The groundwater samples were preserved according to EPA protocol and shipped to Columbia Analytical Services Laboratory in Jacksonville, FL, a North Carolina certified laboratory. The analytical results for this sampling event are attached.

With the exception of iron and manganese, the laboratory analysis of samples collected from site monitoring wells were below the applicable NC standards. The results of the five (5) groundwater samples exceeded the iron and manganese NC 2L standards of 300 ug/L and 50 ug/L, respectively. These results are consistent with historical sampling data, and are considered to be naturally occurring and within the range of background concentrations reported for upgradient monitoring well MWLG-1.

While preparing this report, PREMO determined that the November 2007 manganese results were significantly elevated compared to the May 2007 results. A 'units' reporting error was identified in the May 2007 laboratory data for manganese. The results were inadvertently reported in micrograms per liter (ug/L) instead of milligrams per liter (mg/L). The included NC Solid Waste Section electronic deliverable has been updated to include the corrected May 2007 manganese results.

With the exception of iron and manganese, the laboratory analysis of samples collected from site monitoring wells in May 2007 and November 2007 were below the applicable NC standards. The detected iron and manganese concentrations in site wells are reported within the range of background concentrations for this site. The Solid Waste Section has waived the requirement to prepare a Water Quality Assessment Plan for this site. PREMO concurs with this waiver and does not recommend any changes to the monitoring program at this time.

If you have any questions on this report feel free to call at 770-973-2100.

Sincerely,

Patrick Kelley, CHMM
Project Manager

Peter Ramsey, PG
Senior Geologist

cc: Phil Slowiak, International Paper

International Paper | 100 Gaston Road Low Ground Landfill
Roanoke Rapids Mill | Roanoke Rapids, NC Monitoring Wells

Samples collected on 11/14/07 by Paul Farris of URS | Contact: Patrick Kelley, Premo Group
Samples were analyzed by CAS, Inc NC Cert. #: 527 | Phone 770-973-2100 #2860 or email, pkelley@premiercorp-usa.com

FACILITY PERMIT	SAMPLE ID	CAS Number	SWS ID	PARAMETER	RESULT	UNITS	LAB QUALIFIER	DILUTION FACTOR	COLLECT DATE	EXTRACTION DATE	ANALYSIS DATE
42-03	MW-LG 1	7440-38-2	14	Arsenic	2.3	ug/L		1.0	11/14/07	11/21/07	11/29/07
42-03	MW-LG 1	7440-39-3	15	Barium	410	ug/L		1.0	11/14/07	11/21/07	11/29/07
42-03	MW-LG 1	316	316	Biochemical Oxygen Demand	4.0	mg/L	U	1.0	11/14/07	NA	11/16/07
42-03	MW-LG 1	7440-43-9	34	Cadmium	0.12	ug/L	U	1.0	11/14/07	11/21/07	11/29/07
42-03	MW-LG 1	317	317	Chemical Oxygen Demand	42	mg/L		1.0	11/14/07	NA	11/16/07
42-03	MW-LG 1	16887-00-6	301	Chloride	22	mg/L		1.0	11/14/07	NA	11/29/07
42-03	MW-LG 1	7440-47-3	51	Chromium	2	ug/L	U	1.0	11/14/07	11/21/07	11/29/07
42-03	MW-LG 1	7440-50-8	54	Copper	0.85	ug/L	J	1.0	11/14/07	11/21/07	11/29/07
42-03	MW-LG 1	16984-48-8	312	Fluoride	1.5	mg/L		1.0	11/14/07	NA	11/29/07
42-03	MW-LG 1	7439-89-6	340	Iron	56	mg/L		5.0	11/14/07	11/20/07	11/28/07
42-03	MW-LG 1	7439-92-1	131	Lead	0.46	ug/L	J	1.0	11/14/07	11/21/07	11/29/07
42-03	MW-LG 1	7439-96-5	342	Manganese	5180	ug/L		20.0	11/14/07	11/21/07	11/29/07
42-03	MW-LG 1	7439-97-6	132	Mercury	0.14	ug/L	U	1.0	11/14/07	11/19/07	11/19/07
42-03	MW-LG 1	14797-55-8	303	Nitrate	0.003	mg/L	U	1.0	11/14/07	NA	11/15/07
42-03	MW-LG 1	321	321	pH - Lab	6.5	pH UNITS		1.0	11/14/07	NA	11/15/07
42-03	MW-LG 1	7782-49-2	183	Selenium	0.79	ug/L	U	1.0	11/14/07	11/21/07	11/29/07
42-03	MW-LG 1	7440-22-4	184	Silver	0.039	ug/L	U	1.0	11/14/07	11/21/07	11/29/07
42-03	MW-LG 1	14808-79-8	315	Sulfate	16	mg/L		1.0	11/14/07	NA	11/29/07
42-03	MW-LG 1	311	311	Total Dissolved Solids	770	mg/L		1.0	11/14/07	NA	11/19/07
42-03	MW-LG 1	E-10195	357	Total Organic Carbon	6.9	mg/L		1.0	11/14/07	NA	11/29/07
42-03	MW-LG 1	7440-66-6	213	Zinc	10	ug/L	U	1.0	11/14/07	11/21/07	11/29/07
42-03	MW-LG 1			Total Organic Halides	21.5	ug/L	U	1.0	11/14/07	5/21/07	5/25/07
42-03	MW-LG 3	7440-38-2	14	Arsenic	0.28	ug/L	U	1.0	11/14/07	11/21/07	11/29/07
42-03	MW-LG 3	7440-39-3	15	Barium	97	ug/L		1.0	11/14/07	11/21/07	11/29/07
42-03	MW-LG 3	316	316	Biochemical Oxygen Demand	0.86	mg/L	U	1.0	11/14/07	NA	11/16/07
42-03	MW-LG 3	7440-43-9	34	Cadmium	0.12	ug/L	U	1.0	11/14/07	11/21/07	11/29/07
42-03	MW-LG 3	317	317	Chemical Oxygen Demand	44	mg/L		1.0	11/14/07	NA	11/16/07
42-03	MW-LG 3	16887-00-6	301	Chloride	51	mg/L		1.0	11/14/07	NA	11/29/07
42-03	MW-LG 3	7440-47-3	51	Chromium	2.0	ug/L	U	1.0	11/14/07	11/21/07	11/29/07
42-03	MW-LG 3	7440-50-8	54	Copper	0.43	ug/L	J	1.0	11/14/07	11/21/07	11/29/07
42-03	MW-LG 3	16984-48-8	312	Fluoride	1.6	mg/L		1.0	11/14/07	NA	11/29/07
42-03	MW-LG 3	7439-89-6	340	Iron	0.25	mg/L		1.0	11/14/07	11/20/07	11/27/07
42-03	MW-LG 3	7439-92-1	131	Lead	0.3	ug/L	U	1.0	11/14/07	11/21/07	11/29/07
42-03	MW-LG 3	7439-96-5	342	Manganese	4700	ug/L		20.0	11/14/07	11/21/07	11/29/07
42-03	MW-LG 3	7439-97-6	132	Mercury	0.14	ug/L	U	1.0	11/14/07	11/19/07	11/19/07
42-03	MW-LG 3	14797-55-8	303	Nitrate	4.5	mg/L		10.0	11/14/07	NA	11/15/07
42-03	MW-LG 3	321	321	pH - Lab	6.4	pH UNITS		1.0	11/14/07	NA	11/15/07
42-03	MW-LG 3	7782-49-2	183	Selenium	0.79	ug/L	U	1.0	11/14/07	11/21/07	11/29/07
42-03	MW-LG 3	7440-22-4	184	Silver	0.039	ug/L	U	1.0	11/14/07	11/21/07	11/29/07
42-03	MW-LG 3	14808-79-8	315	Sulfate	85	mg/L		1.0	11/14/07	NA	11/29/07
42-03	MW-LG 3	311	311	Total Dissolved Solids	1100	mg/L		1.0	11/14/07	NA	11/19/07
42-03	MW-LG 3	E-10195	357	Total Organic Carbon	12	mg/L		1.0	11/14/07	NA	11/29/07
42-03	MW-LG 3	7440-66-6	213	Zinc	10	ug/L	U	1.0	11/14/07	11/21/07	11/29/07
42-03	MW-LG 3			Total Organic Halides	70.6	ug/L		1.0	11/14/07	5/26/07	5/26/07

International Paper **100 Gaston Road** **Low Ground Landfill**

Roanoke Rapids Mill **Roanoke Rapids, NC** **Monitoring Wells**

Samples collected on 11/14/07 by Paul Farris of URS | Contact: Patrick Kelley, Premo Group

Samples were analyzed by CAS, Inc NC Cert. #: 527 | Phone 770-973-2100 #2860 or email, pkelley@premiercorp-usa.com

FACILITY PERMIT	SAMPLE ID	CAS Number	SWS ID	PARAMETER	RESULT	UNITS	LAB QUALIFIER	DILUTION FACTOR	COLLECT DATE	EXTRACTION DATE	ANALYSIS DATE
42-03	MW-LG5	7440-38-2	14	Arsenic	0.43	ug/L	J	1.0	11/14/07	11/21/07	11/29/07
42-03	MW-LG5	7440-39-3	15	Barium	233	ug/L		1.0	11/14/07	11/21/07	11/29/07
42-03	MW-LG5	316	316	Biochemical Oxygen Demand	4.0	mg/L	U	1.0	11/14/07	NA	11/16/07
42-03	MW-LG5	7440-43-9	34	Cadmium	0.12	ug/L	U	1.0	11/14/07	11/21/07	11/29/07
42-03	MW-LG5	317	317	Chemical Oxygen Demand	33	mg/L		1.0	11/14/07	NA	11/16/07
42-03	MW-LG5	16887-00-6	301	Chloride	2.4	mg/L		1.0	11/14/07	NA	11/29/07
42-03	MW-LG5	7440-47-3	51	Chromium	2.0	ug/L	U	1.0	11/14/07	11/21/07	11/29/07
42-03	MW-LG5	7440-50-8	54	Copper	0.9	ug/L	J	1.0	11/14/07	11/21/07	11/29/07
42-03	MW-LG5	16984-48-8	312	Fluoride	0.87	mg/L		1.0	11/14/07	NA	11/29/07
42-03	MW-LG5	7439-89-6	340	Iron	7	mg/L		1.0	11/14/07	11/20/07	11/27/07
42-03	MW-LG5	7439-92-1	131	Lead	1.0	ug/L		1.0	11/14/07	11/21/07	11/29/07
42-03	MW-LG5	7439-96-5	342	Manganese	19300	ug/L		20.0	11/14/07	11/21/07	11/29/07
42-03	MW-LG5	7439-97-6	132	Mercury	0.14	ug/L	U	1.0	11/14/07	11/19/07	11/19/07
42-03	MW-LG5	14797-55-8	303	Nitrate	0.003	mg/L	U	1.0	11/14/07	NA	11/15/07
42-03	MW-LG5	321	321	pH - Lab	6.4	pH UNITS		1.0	11/14/07	NA	11/15/07
42-03	MW-LG5	7782-49-2	183	Selenium	0.79	ug/L	U	1.0	11/14/07	11/21/07	11/29/07
42-03	MW-LG5	7440-22-4	184	Silver	0.039	ug/L	U	1.0	11/14/07	11/21/07	11/29/07
42-03	MW-LG5	14808-79-8	315	Sulfate	130	mg/L		1.0	11/14/07	NA	11/29/07
42-03	MW-LG5	311	311	Total Dissolved Solids	590	mg/L		1.0	11/14/07	NA	11/19/07
42-03	MW-LG5	E-10195	357	Total Organic Carbon	5.7	mg/L		1.0	11/14/07	NA	11/29/07
42-03	MW-LG5	7440-66-6	213	Zinc	10	ug/L	U	1.0	11/14/07	11/21/07	11/29/07
42-03	MW-LG5			Total Organic Halides	10	ug/L	U	1.0	11/14/07	5/26/07	5/26/07
42-03	MW-LG6	7440-38-2	14	Arsenic	0.28	ug/L	U	1.0	11/14/07	11/21/07	11/29/07
42-03	MW-LG6	7440-39-3	15	Barium	870	ug/L		1.0	11/14/07	11/21/07	11/29/07
42-03	MW-LG6	316	316	Biochemical Oxygen Demand	4.0	mg/L	U	1.0	11/14/07	NA	11/16/07
42-03	MW-LG6	7440-43-9	34	Cadmium	0.12	ug/L	U	1.0	11/14/07	11/21/07	11/29/07
42-03	MW-LG6	317	317	Chemical Oxygen Demand	50	mg/L		1.0	11/14/07	NA	11/16/07
42-03	MW-LG6	16887-00-6	301	Chloride	26	mg/L		1.0	11/14/07	NA	11/29/07
42-03	MW-LG6	7440-47-3	51	Chromium	4.4	ug/L		1.0	11/14/07	11/21/07	11/29/07
42-03	MW-LG6	7440-50-8	54	Copper	0.59	ug/L	J	1.0	11/14/07	11/21/07	11/29/07
42-03	MW-LG6	16984-48-8	312	Fluoride	1.6	mg/L		1.0	11/14/07	NA	11/29/07
42-03	MW-LG6	7439-89-6	340	Iron	0.55	mg/L		1.0	11/14/07	11/20/07	11/27/07
42-03	MW-LG6	7439-92-1	131	Lead	0.3	ug/L	U	1.0	11/14/07	11/21/07	11/29/07
42-03	MW-LG6	7439-96-5	342	Manganese	1670	ug/L		20.0	11/14/07	11/21/07	11/29/07
42-03	MW-LG6	7439-97-6	132	Mercury	0.14	ug/L	U	1.0	11/14/07	11/19/07	11/19/07
42-03	MW-LG6	14797-55-8	303	Nitrate	0.0060	mg/L	J	1.0	11/14/07	NA	11/15/07
42-03	MW-LG6	321	321	pH - Lab	7.0	pH UNITS		1.0	11/14/07	NA	11/15/07
42-03	MW-LG6	7782-49-2	183	Selenium	0.79	ug/L	U	1.0	11/14/07	11/21/07	11/29/07
42-03	MW-LG6	7440-22-4	184	Silver	0.039	ug/L	U	1.0	11/14/07	11/21/07	11/29/07
42-03	MW-LG6	14808-79-8	315	Sulfate	87	mg/L		1.0	11/14/07	NA	11/29/07
42-03	MW-LG6	311	311	Total Dissolved Solids	2000	mg/L		2.0	11/14/07	NA	11/19/07
42-03	MW-LG6	E-10195	357	Total Organic Carbon	14	mg/L		2.0	11/14/07	NA	11/19/07
42-03	MW-LG6	7440-66-6	213	Zinc	10	mg/L	U	1.0	11/14/07	NA	11/29/07
42-03	MW-LG6			Total Organic Halides	17.5	ug/L	U	1.0	11/14/07	11/21/07	11/29/07

International Paper **100 Gaston Road Low Ground Landfill**

Roanoke Rapids Mill **Roanoke Rapids, NC Monitoring Wells**

Samples collected on 11/14/07 by Paul Farris of URS | Contact: Patrick Kelley, Premo Group

Samples were analyzed by CAS, Inc NC Cert. #: 527 | Phone 770-973-2100 #2860 or email, pkelley@premiercorp-usa.com

FACILITY PERMIT	SAMPLE ID	CAS Number	SWS ID	PARAMETER	RESULT	UNITS	LAB QUALIFIER	DILUTION FACTOR	COLLECT DATE	EXTRACTION DATE	ANALYSIS DATE
42-03	MW-LG7	7440-38-2	14	Arsenic	0.37	ug/L	J	1.0	11/14/07	11/21/07	11/29/07
42-03	MW-LG7	7440-39-3	15	Barium	130	ug/L		1.0	11/14/07	11/21/07	11/29/07
42-03	MW-LG7	316	316	Biochemical Oxygen Demand	0.86	mg/L	U	1.0	11/14/07	NA	11/16/07
42-03	MW-LG7	7440-43-9	34	Cadmium	0.12	ug/L	U	1.0	11/14/07	11/21/07	11/29/07
42-03	MW-LG7	317	317	Chemical Oxygen Demand	23	mg/L		1.0	11/14/07	NA	11/16/07
42-03	MW-LG7	16887-00-6	301	Chloride	22	mg/L		1.0	11/14/07	NA	11/29/07
42-03	MW-LG7	7440-47-3	51	Chromium	2	ug/L	U	1.0	11/14/07	11/21/07	11/29/07
42-03	MW-LG7	7440-50-8	54	Copper	0.89	ug/L	J	1.0	11/14/07	11/21/07	11/29/07
42-03	MW-LG7	16984-48-8	312	Fluoride	1.6	mg/L		1.0	11/14/07	NA	11/29/07
42-03	MW-LG7	7439-89-6	340	Iron	0.35	mg/L		1.0	11/14/07	11/20/07	11/21/07
42-03	MW-LG7	7439-92-1	131	Lead	0.3	ug/L	U	1.0	11/14/07	11/21/07	11/29/07
42-03	MW-LG7	7439-96-5	342	Manganese	1570	ug/L		5.0	11/14/07	11/21/07	11/29/07
42-03	MW-LG7	7439-97-6	132	Mercury	0.14	ug/L	U	1.0	11/14/07	11/19/07	11/19/07
42-03	MW-LG7	14797-55-8	303	Nitrate	1.9	mg/L		10.0	11/14/07	NA	11/15/07
42-03	MW-LG7	321	321	pH - Lab	6.6	pH UNITS		1.0	11/14/07	NA	11/15/07
42-03	MW-LG7	7782-49-2	183	Selenium	2.4	ug/L		1.0	11/14/07	11/21/07	11/29/07
42-03	MW-LG7	7440-22-4	184	Silver	0.039	ug/L	U	1.0	11/14/07	11/21/07	11/29/07
42-03	MW-LG7	14808-79-8	315	Sulfate	180	mg/L		1.0	11/14/07	NA	11/29/07
42-03	MW-LG7	311	311	Total Dissolved Solids	1200	mg/L		1.0	11/14/07	NA	11/19/07
42-03	MW-LG7	E-10195	357	Total Organic Carbon	6.6	mg/L		1.0	11/14/07	NA	11/29/07
42-03	MW-LG7	7440-66-6	213	Zinc	10	ug/L	U	1.0	11/14/07	11/21/07	11/29/07
42-03	MW-LG7			Total Organic Halides	44.5	ug/L	U	1.0	5/15/07	5/26/07	5/26/07

U - Undetected above the MRL/MDL

J - Estimated value above the MDL, but below the MRL

Low-Flow Groundwater Sampling Log Sheet

Facility ID Former IP Low Ground Landfill Site **URS Project No.** 31825810 **Date** 11/14/2007

Well No. LG-1 **Well Depth** 16.5' **Screen Length** 10' **Well Diameter** 2"

Casing Type II - SCH40 PVC **Tubing Type** poly (new) **Initial Water Depth** 9.09'

Sampling Device Geo-Pump 2, variable speed peristaltic **Measuring Point** Top of Well Casing

Sampling Personnel Shull / Farris

Samples Collected (Sample Time = 1140) 1-125ml HDPE BOTTLE w/HCl → TOC; 1-125ml HDPE Bottle w/HNO_3 → Metals; 1-125ml HDPE Bottle w/H_2SO_4 → COD;

Other Information 1-500ml HDPE Bottle → BOD, TDS, Cl, NO_3, F, pH; 1-1L Glass bottle w/H_2SO_4 → TOX

Time (24-hr)	pH -log[H30+]	Temp (°C)	Conductivity (mS/cm)	D.O. (mg/l)	Turbidity (NTU)	O.R.P. (mV)	Water Depth (feet)	Pump Rate (liters/minute)	
1116	—	—	—	—	—	—	9.09	.25	
1119	6.59	17.35	1.463	5.52	21.1	-101.9	9.61	.25	
1122	6.55	17.33	1.469	1.38	14.0	-88.2	9.70	.25	
1125	6.53	17.35	1.448	1.14	9.15	-83.5	9.77	.25	
1128	6.52	17.33	1.432	1.06	7.22	-85.4	9.80	.25	
1131	6.52	17.32	1.412	0.99	4.93	-91.6	9.83	.25	
1134	6.51	17.28	1.389	0.97	5.34	-92.6	9.85	.25	
1137	6.50	17.27	1.378	0.97	5.15	-94.4	9.88	.25	

Protocol Reminders :

(1) Adjust pump so that less than 0.33-feet (4-inches) of drawdown occurs in well

(2) Purge rate should not exceed 1.0 l/min (0.26 gal/min). Purge rates of 0.1 - 0.5 l/min are preferred

(3) Record parameters and drawdown every 3-5 minutes, or typically every 1 volume of flow through cell

(4) Three successive readings should be within the variance guideline listed below:

pH	Temp	Conductivity	D.O.	Turbidity	O.R.P.
+/- 0.2 units	+/-3%	+/-3%	+/- 10%	+/- 10%	+/- 20mV

Notes / Calculations :

Low-Flow Groundwater Sampling Log Sheet

Facility ID Former IP Low Ground Landfill Site **URS Project No.** 31825810 **Date** 11/14/2007

Well No. LG-3 **Well Depth** 20.0' **Screen Length** 5' **Well Diameter** 2"

Casing Type II - SCH40 PVC **Tubing Type** poly (new) **Initial Water Depth** 9.05'

Sampling Device Geo-Pump 2, variable speed peristaltic **Measuring Point** Top of Well Casing

Sampling Personnel ANDREW SHULL / PAUL FARRIS

Samples Collected 1-125ml HDPE Bottle w/HCl → TOC ; 1-125ml HDPE BOTTLE w/HNO_3 → METALS; 1-125ml HDPE BOTTLE w/H_2SO_4 → COD ; 1-500ml HDPE BOTTLE → BOD, TDS,

Other Information Cl, NO_3, F, pH ; 1-1L Glass Bottle w/H_2SO_4 → TOX
COLLECT SAMPLES @ 1240

Time (24-hr)	pH -log[H30+]	Temp (°C)	Conductivity (mS/cm)	D.O. (mg/l)	Turbidity (NTU)	O.R.P. (mV)	Water Depth (feet)	Pump Rate (liters/minute)	
1220	-	-	-	-	-	-	9.05	-	-
1223	6.19	19.48	1.477	2.85	7.87	86.4	9.60	0.6	
1226	6.18	19.41	1.515	2.07	4.12	86.8	9.69	0.25	
1229	6.18	19.40	1.558	1.58	2.29	85.8	9.80	0.25	
1232	6.19	19.39	1.611	1.41	1.79	78.7	9.90	0.25	
1235	6.20	19.37	1.640	1.31	2.12	76.4	9.96	0.25	
1238	6.21	19.41	1.663	1.21	1.32	76.3	10.02	0.25	

Protocol Reminders :

(1) Adjust pump so that less than 0.33-feet (4-inches) of drawdown occurs in well

(2) Purge rate should not exceed 1.0 l/min (0.26 gal/min). Purge rates of 0.1 - 0.5 l/min are preferred

(3) Record parameters and drawdown every 3-5 minutes, or typically every 1 volume of flow through cell

(4) Three successive readings should be within the variance guideline listed below:

pH	Temp	Conductivity	D.O.	Turbidity	O.R.P.
+/- 0.2 units	+/-3%	+/-3%	+/- 10%	+/- 10%	+/- 20mV

Notes / Calculations :

Low-Flow Groundwater Sampling Log Sheet

Facility ID Former IP Low Ground Landfill Site **URS Project No.** 31825810 **Date** 11/14/2007

Well No. LG-5 **Well Depth** 19.0' **Screen Length** 5' **Well Diameter** 2"

Casing Type II - SCH40 PVC **Tubing Type** poly (new) **Initial Water Depth** 12.30'

Sampling Device Geo-Pump 2, variable speed peristaltic **Measuring Point** Top of Well Casing

Sampling Personnel Shull / Farris

Samples Collected (Sample time = 1345) 1-125ml HDPE Bottle w/ HCl → TOC; 1-125ml HDPE bottle w/ HNO_3 → metals; 1-125ml HDPE bottle w/ H_2SO_4 → COD,

Other Information 1-500ml HDPE bottle → BOD, TDS, Cl, NO_3, F, pH; 1-1L Glass bottle w/ H_2SO_4 → TOX

Time (24-hr)	pH -log[H30+]	Temp (°C)	Conductivity (mS/cm)	D.O. (mg/l)	Turbidity (NTU)	O.R.P. (mV)	Water Depth (feet)	Pump Rate (liters/minute)	
1315	–	–	–	–	–	–	12.30	–	
1318	6.34	21.13	0.856	1.33	5.03	57.4	12.78	.25	
1321	6.30	21.10	0.848	0.92	12.2	61.1	12.90	.25	
1324	6.28	20.74	0.845	0.83	5.33	51.5	13.09	.25	
1327	6.28	20.64	0.848	0.62	4.05	40.5	13.20	.25	
1330	6.29	20.62	0.854	0.55	2.89	33.4	13.51	.25	
1333	6.29	20.63	0.860	0.56	2.12	24.9	13.65	.25	
1336	6.29	20.62	0.866	0.54	1.83	21.7	13.60	.25	

Protocol Reminders :

(1) Adjust pump so that less than 0.33-feet (4-inches) of drawdown occurs in well

(2) Purge rate should not exceed 1.0 l/min (0.26 gal/min). Purge rates of 0.1 - 0.5 l/min are preferred

(3) Record parameters and drawdown every 3-5 minutes, or typically every 1 volume of flow through cell

(4) Three successive readings should be within the variance guideline listed below:

pH	Temp	Conductivity	D.O.	Turbidity	O.R.P.
+/- 0.2 units	+/-3%	+/-3%	+/- 10%	+/- 10%	+/- 20mV

Notes / Calculations :

Low-Flow Groundwater Sampling Log Sheet

Facility ID Former IP Low Ground Landfill Site **URS Project No.** 31825810 **Date** 11/14/2007

Well No. LG-6 **Well Depth** 18.0' **Screen Length** 5' **Well Diameter** 2"

Casing Type II - SCH40 PVC **Tubing Type** poly (new) **Initial Water Depth** 11.22'

Sampling Device Geo-Pump 2, variable speed peristaltic **Measuring Point** Top of Well Casing

Sampling Personnel ANDREW Shull / PAUL FARRIS

Samples Collected 1-125 ml HDPE BOTTLE w/ HCL → TOC ; 1-125ml HDPE BOTTLE w/ HNO_3 → Metals ; 1-125 HDPE BOTTLE w/ H_2SO_4 → COD ; 1-500 ml BOTTLE HDPE

~~**Other Information**~~ → BOD, TDS, Cl, NO_3, F, pH ; 1-1L Glass BOTTLE w/ H_2SO_4 → TOX COLLECT SAMPLE LG-6 @ ~~1545~~ 1455

Time (24-hr)	pH -log[H30+]	Temp (°C)	Conductivity (mS/cm)	D.O. (mg/l)	Turbidity (NTU)	O.R.P. (mV)	Water Depth (feet)	Pump Rate (liters/minute)	
1430	—	—	—	—	—	—	11.22	-	
1433	6.88	21.24	3.226	2.04	0.17	-107	12.08	0.5	
1436	6.89	21.14	3.236	1.43	0.05	-114	12.48	0.35	
1439	6.90	21.16	3.238	1.27	0.09	-118	12.80	0.35	
1442	6.90	21.12	3.238	1.13	0.05	-125	12.94	0.25	
1445	6.90	21.10	3.236	1.06	0.05	-128	13.03	0.25	
1448	6.90	21.10	3.236	1.01	0.05	-130	13.12	0.25	

Protocol Reminders :

(1) Adjust pump so that less than 0.33-feet (4-inches) of drawdown occurs in well

(2) Purge rate should not exceed 1.0 l/min (0.26 gal/min). Purge rates of 0.1 - 0.5 l/min are preferred

(3) Record parameters and drawdown every 3-5 minutes, or typically every 1 volume of flow through cell

(4) Three successive readings should be within the variance guideline listed below:

pH	Temp	Conductivity	D.O.	Turbidity	O.R.P.
+/- 0.2 units	+/-3%	+/-3%	+/- 10%	+/- 10%	+/- 20mV

Notes / Calculations :

Low-Flow Groundwater Sampling Log Sheet

Facility ID Former IP Low Ground Landfill Site **URS Project No.** 31825810 **Date** 11/14/2007

Well No. LG~~7~~ **Well Depth** 17.0' ~~16.5'~~ **Screen Length** 5' ~~5'~~ ~~10'~~ 22' **Well Diameter** 2"

Casing Type II - SCH40 PVC **Tubing Type** poly (new) **Initial Water Depth** 11.36

Sampling Device Geo-Pump 2, variable speed peristaltic **Measuring Point** Top of Well Casing

Sampling Personnel Farris / Shull

Samples Collected (sample time = 1025) 1-125ml HDPE Bottle w/HCl → TOC; 1-125ml HDPE Bottle w/HNO_3 → Metals; 1-125ml ADPE bottle w/H_2SO_4 → COD; 1-500ml HDPE bottle → BO[illegible] TDS, Cl, NO[illegible] F, pH

Other Information (Flow rate: 200ml/min) 1-1L glass bottle w/H_2SO_4 → TOX

Time (24-hr)	pH -log[H30+]	Temp (°C)	Conductivity (mS/cm)	D.O. (mg/l)	Turbidity (NTU)	O.R.P. (mV)	Water Depth (feet)	Pump Rate (liters/minute)	
1003	—	—	—	—	—	—	11.36	0.2	
1006	6.77	17.01	1.791	6.83	5.1	36.9	11.67	0.2	
1009	6.62	17.14	1.790	3.22	4.0	45.2	11.88	0.2	
1012	6.61	17.27	1.800	2.92	3.97	48.6	11.95	0.2	
1015	6.61	17.31	1.813	2.74	3.38	49.0	12.01	0.2	
1018	6.61	17.30	1.820	2.78	3.48	50.6	12.07	0.2	
1021	6.60	17.27	1.823	2.74	3.33	51.5	12.10	0.2	
1024	6.60	17.23	1.820	2.70	3.15	50.9	12.12	0.2	

Protocol Reminders :

(1) Adjust pump so that less than 0.33-feet (4-inches) of drawdown occurs in well

(2) Purge rate should not exceed 1.0 l/min (0.26 gal/min). Purge rates of 0.1 - 0.5 l/min are preferred

(3) Record parameters and drawdown every 3-5 minutes, or typically every 1 volume of flow through cell

(4) Three successive readings should be within the variance guideline listed below:

pH	Temp	Conductivity	D.O.	Turbidity	O.R.P.
+/- 0.2 units	+/-3%	+/-3%	+/- 10%	+/- 10%	+/- 20mV

Notes / Calculations :

8540 Baycenter Road Jacksonville,Florida 32256 (904) 739-2277 (904) 739-2011 fax

Columbia Analytical Services INC.
An Employee - Owned Company

December 05, 2007 Service Request No: J0705505

Ernie Pollitzer
Premier Environmental Services
1880 West Oak Parkway
Building 100, Suite 106
Marietta, GA 30062

RE: FORMER IP LOW GROUND LANDFILL

Dear Ernie:

Enclosed are the results of the sample(s) submitted to our laboratory on November 15, 2007. For your reference, these analyses have been assigned our service request number **J0705505**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. In accordance to the NELAC 2003 Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please call if you have any questions. My extension is 289. You may also contact me via email at TKissinger@caslab.com.

Respectfully submitted,

Columbia Analytical Services, Inc.

Tom Kissinger
Project Chemist

Laboratory Manager: Greg Jordan
Quality Assurance Officer: Kathy Brungard

CAS Jacksonville is NELAC-accredited by the State of Florida, #E82502 valid through 6/30/08. Other state accreditations include: Arkansas, #88-0600 valid through 1/12/06; Georgia, #958 valid through 6/30/08; Louisiana, #02086 valid through 6/30/08; Texas, #T104704197-06-TX valid through 5/31/08; North Carolina, #527 valid through 12/31/07; South Carolina, #96021001 valid through 6/30/07.

COLUMBIA ANALYTICAL SERVICES, INC.

Client:	Premier Environmental Services	**Service Request No.:**	J0705505
Project:	FORMER IP LOW GROUND LANDFILL	**Date Received:**	11/15/07
Sample Matrix:	water		

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier II data deliverables, including results of QC samples analyzed from this delivery group. When appropriate to the procedure, method blank results have been reported with each analytical test. Analytical procedures performed by the lab are validated in accordance with NELAC standards. Parameters that are included in the NELAC Fields of Testing but are not included in the lab's NELAC accreditation are identified in the discussion of each analytical procedure.

Sample Receipt

6 water samples were received for analysis at Columbia Analytical Services on 11/15/07. The samples were received in good condition and consistent with the accompanying chain of custody form. Samples are refrigerated at 4±2°C upon receipt at the lab except for aqueous samples designated for metals analyses, which were stored at room temperature.

Metals by ICP-OES / Metals by ICP-MS / Mercury by CVAA

Matrix Spike Recovery Exceptions

The control criteria for matrix spike recoveries of Iron for sample LG-1 are not applicable. The analyte concentration in the sample was significantly higher than the added spike concentration, preventing accurate evaluation of the spike recovery.

Elevated Method Reporting Limits

Sample(s) LG-1 required a dilution due to the presence of elevated levels of target analyte (Iron). The reporting limits are adjusted to reflect the dilution.

Batch QC Notes and Discussion

Quality control samples for some parameters (i.e., Dup/Spike or MS/DMS samples) were performed using samples from another sample delivery group (SDG). The frequency requirement for quality control sample analysis was consistent with the project's requirements. Matrix specific quality control results have no bearing on sample data from a different matrix or location. Therefore, control of the batch has been evaluated using the method blank and the laboratory control sample.

General Chemistry Parameters

Batch QC Notes and Discussion

Quality control samples for some parameters (i.e., Dup/Spike or MS/DMS samples) were performed using samples from another sample delivery group (SDG). The frequency requirement for quality control sample analysis was consistent with the project's requirements. Matrix specific quality control results have no bearing on sample data from a different matrix or location. Therefore, control of the batch has been evaluated using the method blank and the laboratory control sample.

Subcontracted Analytical Parameters

TOX analyses were sub-contracted to Test America Nashville TN.

Approved by Tom D. Kissinger Date 12/5/07

Data Qualifiers

Inorganic Data

*	The result is an outlier. See case narrative.
#	The control limit criteria are not applicable. See case narrative.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result.
E	The result is an estimated amount because the value exceeded the instrument calibration range.
J	The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.
U	The compound was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
Z	Too many colonies were present (TNTC). The numeric value represents the filtration volume.
i	The MRL/MDL has been elevated due to matrix interference.
X	See case narrative.

Metals Data

*	The result is an outlier. See case narrative.
#	The control limit criteria are not applicable. See case narrative.
B	The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.
E	The reported value is estimated because of the presence of matrix interference.
M	The duplicate injection precision was not met.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
S	The result was determined by Method of Standard Additions (MSA).
U	The compound was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
i	The MRL/MDL has been elevated due to matrix interference.
X	See case narrative.
+	The correlation coefficient for the MSA is less than 0.995.

Organic Data

*	The result is an outlier. See case narrative.
#	The control limit criteria are not applicable. See case narrative.
A	The tentatively identified compound is a suspected aldol-condensation product.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result.
C	The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
D	The reported result is from a dilution.
E	The result is an estimated amount because the value exceeded the instrument calibration range.
J	The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.
N	The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
P	The GC or HPLC confirmation criteria were exceeded. The relative percent difference is greater than 40% between the two analytical results (25% for CLP Pesticides)
U	The compound was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
i	The MRL/MDL has been elevated due to a chromatographic interference.
X	See case narrative.

Petroleum Hydrocarbon Specific

F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
Y	The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
Z	The chromatographic fingerprint does not resemble a petroleum product.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Client: Premier Environmental Services
Project: FORMER IP LOW GROUND LANDFILL

Service Request: J0705505

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
J0705505-001	LG-7	11/14/07	10:25
J0705505-002	LG-1	11/14/07	11:40
J0705505-003	LG-3	11/14/07	12:40
J0705505-004	LG-5	11/14/07	13:45
J0705505-005	BLANK	11/14/07	14:00
J0705505-006	LG-6	11/14/07	14:55

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: Premo, Inc.
Project Name: FORMER IP LOW GROUND LANDFILL
Project Number: NA
Matrix: WATER

Service Request: J0705505
Date Collected: 11/14/2007
Date Received: 11/15/2007

Total Metals

Sample Name: LG-7
Lab Code: J0705505-001

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Arsenic	EPA 3020A	6020	0.50	0.28	1.0	11/21/2007	11/29/2007	0.37	B
Barium	EPA 3020A	6020	2.0	0.14	1.0	11/21/2007	11/29/2007	130	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/21/2007	11/29/2007	U	
Chromium	EPA 3020A	6020	2.0	0.12	1.0	11/21/2007	11/29/2007	1.4	B
Copper	EPA 3020A	6020	2.0	0.29	1.0	11/21/2007	11/29/2007	0.89	B
Lead	EPA 3020A	6020	1.0	0.30	1.0	11/21/2007	11/29/2007	U	
Manganese	EPA 3020A	6020	5.0	0.33	5.0	11/21/2007	11/29/2007	1570	
Mercury	METHOD	7470A	0.50	0.14	1.0	11/19/2007	11/19/2007	U	
Selenium	EPA 3020A	6020	2.0	0.79	1.0	11/21/2007	11/29/2007	2.4	
Silver	EPA 3020A	6020	0.50	0.039	1.0	11/21/2007	11/29/2007	U	
Zinc	EPA 3020A	6020	10	1.7	1.0	11/21/2007	11/29/2007	3.9	B

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: Premo, Inc.
Project Name: FORMER IP LOW GROUND LANDFILL
Project Number: NA
Matrix: WATER

Service Request: J0705505
Date Collected: 11/14/2007
Date Received: 11/15/2007

Total Metals

Sample Name: LG-1
Lab Code: J0705505-002

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Arsenic	EPA 3020A	6020	0.50	0.28	1.0	11/21/2007	11/29/2007	2.3	
Barium	EPA 3020A	6020	2.0	0.14	1.0	11/21/2007	11/29/2007	410	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/21/2007	11/29/2007	U	
Chromium	EPA 3020A	6020	2.0	0.12	1.0	11/21/2007	11/29/2007	1.5	B
Copper	EPA 3020A	6020	2.0	0.29	1.0	11/21/2007	11/29/2007	0.85	B
Lead	EPA 3020A	6020	1.0	0.30	1.0	11/21/2007	11/29/2007	0.46	B
Manganese	EPA 3020A	6020	20	1.3	20.0	11/21/2007	11/29/2007	5180	
Mercury	METHOD	7470A	0.50	0.14	1.0	11/19/2007	11/19/2007	U	
Selenium	EPA 3020A	6020	2.0	0.79	1.0	11/21/2007	11/29/2007	U	
Silver	EPA 3020A	6020	0.50	0.039	1.0	11/21/2007	11/29/2007	U	
Zinc	EPA 3020A	6020	10	1.7	1.0	11/21/2007	11/29/2007	3.3	B

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: Premo, Inc.
Project Name: FORMER IP LOW GROUND LANDFILL
Project Number: NA
Matrix: WATER

Service Request: J0705505
Date Collected: 11/14/2007
Date Received: 11/15/2007

Total Metals

Sample Name: LG-3
Lab Code: J0705505-003

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Arsenic	EPA 3020A	6020	0.50	0.28	1.0	11/21/2007	11/29/2007	U	
Barium	EPA 3020A	6020	2.0	0.14	1.0	11/21/2007	11/29/2007	97	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/21/2007	11/29/2007	U	
Chromium	EPA 3020A	6020	2.0	0.12	1.0	11/21/2007	11/29/2007	1.0	B
Copper	EPA 3020A	6020	2.0	0.29	1.0	11/21/2007	11/29/2007	0.43	B
Lead	EPA 3020A	6020	1.0	0.30	1.0	11/21/2007	11/29/2007	U	
Manganese	EPA 3020A	6020	20	1.3	20.0	11/21/2007	11/29/2007	4700	
Mercury	METHOD	7470A	0.50	0.14	1.0	11/19/2007	11/19/2007	U	
Selenium	EPA 3020A	6020	2.0	0.79	1.0	11/21/2007	11/29/2007	U	
Silver	EPA 3020A	6020	0.50	0.039	1.0	11/21/2007	11/29/2007	U	
Zinc	EPA 3020A	6020	10	1.7	1.0	11/21/2007	11/29/2007	3.7	B

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: Premo, Inc.
Project Name: FORMER IP LOW GROUND LANDFILL
Project Number: NA
Matrix: WATER

Service Request: J0705505
Date Collected: 11/14/2007
Date Received: 11/15/2007

Total Metals

Sample Name: LG-5
Lab Code: J0705505-004

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Arsenic	EPA 3020A	6020	0.50	0.28	1.0	11/21/2007	11/29/2007	0.43	B
Barium	EPA 3020A	6020	2.0	0.14	1.0	11/21/2007	11/29/2007	233	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/21/2007	11/29/2007	U	
Chromium	EPA 3020A	6020	2.0	0.12	1.0	11/21/2007	11/29/2007	1.5	B
Copper	EPA 3020A	6020	2.0	0.29	1.0	11/21/2007	11/29/2007	0.90	B
Lead	EPA 3020A	6020	1.0	0.30	1.0	11/21/2007	11/29/2007	1.0	
Manganese	EPA 3020A	6020	20	1.3	20.0	11/21/2007	11/29/2007	19300	
Mercury	METHOD	7470A	0.50	0.14	1.0	11/19/2007	11/19/2007	U	
Selenium	EPA 3020A	6020	2.0	0.79	1.0	11/21/2007	11/29/2007	U	
Silver	EPA 3020A	6020	0.50	0.039	1.0	11/21/2007	11/29/2007	U	
Zinc	EPA 3020A	6020	10	1.7	1.0	11/21/2007	11/29/2007	7.3	B

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: Premo, Inc.
Project Name: FORMER IP LOW GROUND LANDFILL
Project Number: NA
Matrix: WATER

Service Request: J0705505
Date Collected: 11/14/2007
Date Received: 11/15/2007

Total Metals

Sample Name: BLANK
Lab Code: J0705505-005

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Arsenic	EPA 3020A	6020	0.50	0.28	1.0	11/21/2007	11/29/2007	U	
Barium	EPA 3020A	6020	2.0	0.14	1.0	11/21/2007	11/29/2007	1.4	B
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/21/2007	11/29/2007	U	
Chromium	EPA 3020A	6020	2.0	0.12	1.0	11/21/2007	11/29/2007	1.1	B
Copper	EPA 3020A	6020	2.0	0.29	1.0	11/21/2007	11/29/2007	U	
Lead	EPA 3020A	6020	1.0	0.30	1.0	11/21/2007	11/29/2007	U	
Manganese	EPA 3020A	6020	1.0	0.07	1.0	11/21/2007	11/29/2007	5.1	
Mercury	METHOD	7470A	0.50	0.14	1.0	11/19/2007	11/19/2007	U	
Selenium	EPA 3020A	6020	2.0	0.79	1.0	11/21/2007	11/29/2007	U	
Silver	EPA 3020A	6020	0.50	0.039	1.0	11/21/2007	11/29/2007	U	
Zinc	EPA 3020A	6020	10	1.7	1.0	11/21/2007	11/29/2007	2.1	B

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: Premo, Inc.
Project Name: FORMER IP LOW GROUND LANDFILL
Project Number: NA
Matrix: WATER

Service Request: J0705505
Date Collected: 11/14/2007
Date Received: 11/15/2007

Total Metals

Sample Name: LG-6
Lab Code: J0705505-006

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Arsenic	EPA 3020A	6020	0.50	0.28	1.0	11/21/2007	11/29/2007	U	
Barium	EPA 3020A	6020	2.0	0.14	1.0	11/21/2007	11/29/2007	870	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/21/2007	11/29/2007	U	
Chromium	EPA 3020A	6020	2.0	0.12	1.0	11/21/2007	11/29/2007	4.4	
Copper	EPA 3020A	6020	2.0	0.29	1.0	11/21/2007	11/29/2007	0.59	B
Lead	EPA 3020A	6020	1.0	0.30	1.0	11/21/2007	11/29/2007	U	
Manganese	EPA 3020A	6020	20	1.3	20.0	11/21/2007	11/29/2007	1670	
Mercury	METHOD	7470A	0.50	0.14	1.0	11/19/2007	11/19/2007	U	
Selenium	EPA 3020A	6020	2.0	0.79	1.0	11/21/2007	11/29/2007	U	
Silver	EPA 3020A	6020	0.50	0.039	1.0	11/21/2007	11/29/2007	U	
Zinc	EPA 3020A	6020	10	1.7	1.0	11/21/2007	11/29/2007	3.1	B

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: Premo, Inc.
Project Name: FORMER IP LOW GROUND LANDFILL
Project Number: NA
Matrix: WATER

Service Request: J0705505
Date Collected: N/A
Date Received: N/A

Total Metals

Sample Name: Method Blank
Lab Code: MB6-1121

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Arsenic	EPA 3020A	6020	0.50	0.28	1.0	11/21/2007	11/29/2007	U	
Barium	EPA 3020A	6020	2.00	0.14	1.0	11/21/2007	11/29/2007	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/21/2007	11/29/2007	U	
Chromium	EPA 3020A	6020	2.00	0.12	1.0	11/21/2007	11/29/2007	0.43	B
Copper	EPA 3020A	6020	2.00	0.29	1.0	11/21/2007	11/29/2007	U	
Lead	EPA 3020A	6020	1.00	0.30	1.0	11/21/2007	11/29/2007	U	
Manganese	EPA 3020A	6020	1.00	0.07	1.0	11/21/2007	11/29/2007	U	
Mercury	METHOD	7470A	0.50	0.14	1.0	11/19/2007	11/19/2007	U	
Selenium	EPA 3020A	6020	2.00	0.79	1.0	11/21/2007	11/29/2007	U	
Silver	EPA 3020A	6020	0.500	0.039	1.0	11/21/2007	11/29/2007	U	
Zinc	EPA 3020A	6020	10.0	1.7	1.0	11/21/2007	11/29/2007	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client:	Premo, Inc.	**Service Request:**	J0705505
Project Name:	FORMER IP LOW GROUND LANDFILL	**Date Collected:**	11/14/2007
Project Number:	NA	**Date Received:**	11/15/2007
Matrix:	WATER		

Total Metals
Iron

Prep Method:	EPA 3010A	**Units:**	mg/L
Analysis Method:	6010B	**Basis:**	N/A
Test Notes:			

Sample Name:	Lab Code:	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
LG-7	J0705505-001	0.05	0.02	1.0	11/20/2007	11/21/2007	0.35	
LG-1	J0705505-002	0.25	0.09	5.0	11/20/2007	11/28/2007	56	
LG-3	J0705505-003	0.05	0.02	1.0	11/20/2007	11/27/2007	0.25	
LG-5	J0705505-004	0.05	0.02	1.0	11/20/2007	11/27/2007	7.0	
BLANK	J0705505-005	0.05	0.02	1.0	11/20/2007	11/27/2007	U	
LG-6	J0705505-006	0.05	0.02	1.0	11/20/2007	11/27/2007	0.55	
Method Blank	MB2-1120	0.05	0.02	1.0	11/20/2007	11/21/2007	U	
Method Blank	MB5-1120	0.05	0.02	1.0	11/20/2007	11/27/2007	U	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : Premo, Inc.
Project Name : FORMER IP LOW GROUND LANDFILL
Project Number : NA
Sample Matrix : WATER

Service Request : J0705505
Date Collected : 11/14/07
Date Received : 11/15/07

Inorganic Parameters

Sample Name : LG-7
Lab Code : J0705505-001
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Biochemical Oxygen Demand (BOD)	mg/L (ppm)	405.1	4	0.86	1	11/16/07 16:00	U	
Carbon, Total Organic	mg/L (ppm)	415.1	1	0.41	1	11/29/07 10:00	6.6	
Chemical Oxygen Demand	mg/L (ppm)	410.2	5	1.5	1	11/16/07 21:30	23	
Chloride	mg/L (ppm)	300.0	0.2	0.068	1	11/29/07 21:17	22	
Fluoride	mg/L (ppm)	300.0	0.2	0.047	1	11/29/07 21:17	1.6	
Nitrate as Nitrogen	mg/L (ppm)	353.2	0.2	0.03	10	11/15/07 18:25	1.9	
pH	pH UNITS	9040B	-	-	1	11/15/07 22:00	6.6	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.7	1	11/19/07 09:30	1200	
Sulfate	mg/L (ppm)	300.0	0.4	0.1	1	11/29/07 21:17	180	

Report By:TKissinger

Analytical Report

Client : Premo, Inc.
Project Name : FORMER IP LOW GROUND LANDFILL
Project Number : NA
Sample Matrix : WATER

Service Request : J0705505
Date Collected : 11/14/07
Date Received : 11/15/07

Inorganic Parameters

Sample Name : LG-1
Lab Code : J0705505-002

Basis : NA

Test Notes :

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Biochemical Oxygen Demand (BOD)	mg/L (ppm)	405.1	4	0.86	1	11/16/07 16:00	1.4	J
Carbon, Total Organic	mg/L (ppm)	415.1	1	0.41	1	11/29/07 10:00	6.9	
Chemical Oxygen Demand	mg/L (ppm)	410.2	5	1.5	1	11/16/07 21:30	42	
Chloride	mg/L (ppm)	300.0	0.2	0.068	1	11/29/07 21:17	22	
Fluoride	mg/L (ppm)	300.0	0.2	0.047	1	11/29/07 21:17	1.5	
Nitrate as Nitrogen	mg/L (ppm)	353.2	0.02	0.003	1	11/15/07 18:25	U	
pH	pH UNITS	9040B	-	-	1	11/15/07 22:00	6.5	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.7	1	11/19/07 09:30	770	
Sulfate	mg/L (ppm)	300.0	0.4	0.1	1	11/29/07 21:17	16	

Report By:TKissinger

Analytical Report

Client : Premo, Inc.
Project Name : FORMER IP LOW GROUND LANDFILL
Project Number : NA
Sample Matrix : WATER

Service Request : J0705505
Date Collected : 11/14/07
Date Received : 11/15/07

Inorganic Parameters

Sample Name : LG-3
Lab Code : J0705505-003
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Biochemical Oxygen Demand (BOD)	mg/L (ppm)	405.1	4	0.86	1	11/16/07 16:00	U	
Carbon, Total Organic	mg/L (ppm)	415.1	1	0.41	1	11/29/07 10:00	12	
Chemical Oxygen Demand	mg/L (ppm)	410.2	5	1.5	1	11/16/07 21:30	44	
Chloride	mg/L (ppm)	300.0	0.2	0.068	1	11/29/07 21:17	51	
Fluoride	mg/L (ppm)	300.0	0.2	0.047	1	11/29/07 21:17	1.6	
Nitrate as Nitrogen	mg/L (ppm)	353.2	0.2	0.03	10	11/15/07 18:25	4.5	
pH	pH UNITS	9040B	-	-	1	11/15/07 22:00	6.4	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.7	1	11/19/07 09:30	1100	
Sulfate	mg/L (ppm)	300.0	0.4	0.1	1	11/29/07 21:17	85	

Report By:TKissinger

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : Premo, Inc.
Project Name : FORMER IP LOW GROUND LANDFILL
Project Number : NA
Sample Matrix : WATER

Service Request : J0705505
Date Collected : 11/14/07
Date Received : 11/15/07

Inorganic Parameters

Sample Name : LG-5
Lab Code : J0705505-004

Basis : NA

Test Notes :

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Biochemical Oxygen Demand (BOD)	mg/L (ppm)	405.1	4	0.86	1	11/16/07 16:00	1.6	J
Carbon, Total Organic	mg/L (ppm)	415.1	1	0.41	1	11/29/07 10:00	5.7	
Chemical Oxygen Demand	mg/L (ppm)	410.2	5	1.5	1	11/16/07 21:30	33	
Chloride	mg/L (ppm)	300.0	0.2	0.068	1	11/29/07 21:17	2.4	
Fluoride	mg/L (ppm)	300.0	0.2	0.047	1	11/29/07 21:17	0.87	
Nitrate as Nitrogen	mg/L (ppm)	353.2	0.02	0.003	1	11/15/07 18:25	U	
pH	pH UNITS	9040B	--	-	1	11/15/07 22:00	6.4	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.7	1	11/19/07 09:30	590	
Sulfate	mg/L (ppm)	300.0	0.4	0.1	1	11/29/07 21:17	130	

Report By:TKissinger

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : Premo, Inc.
Project Name : FORMER IP LOW GROUND LANDFILL
Project Number : NA
Sample Matrix : WATER

Service Request : J0705505
Date Collected : 11/14/07
Date Received : 11/15/07

Inorganic Parameters

Sample Name : BLANK
Lab Code : J0705505-005

Basis : NA

Test Notes :

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Biochemical Oxygen Demand (BOD)	mg/L (ppm)	405.1	4	0.86	1	11/16/07 16:00	2.2	J
Carbon, Total Organic	mg/L (ppm)	415.1	1	0.41	1	11/29/07 10:00	1.0	
Chemical Oxygen Demand	mg/L (ppm)	410.2	5	1.5	1	11/16/07 21:30	12	
Chloride	mg/L (ppm)	300.0	0.2	0.068	1	11/29/07 21:17	U	
Fluoride	mg/L (ppm)	300.0	0.2	0.047	1	11/29/07 21:17	U	
Nitrate as Nitrogen	mg/L (ppm)	353.2	0.02	0.003	1	11/15/07 18:25	U	
pH	pH UNITS	9040B	-	-	1	11/15/07 22:00	6.5	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.7	1	11/19/07 16:30	U	
Sulfate	mg/L (ppm)	300.0	0.4	0.1	1	11/29/07 21:17	U	

Report By:TKissinger

Analytical Report

Client : Premo, Inc.
Project Name : FORMER IP LOW GROUND LANDFILL
Project Number : NA
Sample Matrix : WATER

Service Request : J0705505
Date Collected : 11/14/07
Date Received : 11/15/07

Inorganic Parameters

Sample Name : LG-6
Lab Code : J0705505-006

Basis : NA

Test Notes :

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Biochemical Oxygen Demand (BOD)	mg/L (ppm)	405.1	4	0.86	1	11/16/07 16:00	2.7	J
Carbon, Total Organic	mg/L (ppm)	415.1	1	0.41	1	11/29/07 10:00	14	
Chemical Oxygen Demand	mg/L (ppm)	410.2	5	1.5	1	11/16/07 21:30	50	
Chloride	mg/L (ppm)	300.0	0.2	0.068	1	11/29/07 21:17	26	
Fluoride	mg/L (ppm)	300.0	0.2	0.047	1	11/29/07 21:17	1.6	
Nitrate as Nitrogen	mg/L (ppm)	353.2	0.02	0.003	1	11/15/07 18:25	0.0060	J
pH	pH UNITS	9040B	-	-	1	11/15/07 22:00	7.0	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	20	9.4	2	11/19/07 16:30	2000	
Sulfate	mg/L (ppm)	300.0	0.4	0.1	1	11/29/07 21:17	87	

Report By:TKissinger

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : Premo, Inc.
Project Name : FORMER IP LOW GROUND LANDFILL
Project Number : NA
Sample Matrix : WATER

Service Request : J0705505
Date Collected : NA
Date Received : NA

Inorganic Parameters

Sample Name : Method Blank
Lab Code : J0705505-MB
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Biochemical Oxygen Demand (BOD)	mg/L (ppm)	405.1	4	0.86	1	11/16/07 16:00	U	
Carbon, Total Organic	mg/L (ppm)	415.1	1	0.41	1	11/29/07 10:00	U	
Chemical Oxygen Demand	mg/L (ppm)	410.2	5	1.5	1	11/16/07 21:30	U	
Chloride	mg/L (ppm)	300.0	0.2	0.068	1	11/29/07 21:17	U	
Chloride	mg/L (ppm)	300.0	0.2	0.068	1	11/29/07 21:17	U	
Fluoride	mg/L (ppm)	300.0	0.2	0.047	1	11/29/07 21:17	U	
Nitrate as Nitrogen	mg/L (ppm)	353.2	0.02	0.003	1	11/15/07 18:25	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.7	1	11/19/07 09:30	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.7	1	11/19/07 16:30	U	
Sulfate	mg/L (ppm)	300.0	0.4	0.1	1	11/29/07 21:17	U	

Report By:TKissinger

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client:	Premo, Inc.	**Service Request:**	J0705505
Project Name:	FORMER IP LOW GROUND LANDFILL	**Date Collected:**	N/A
Project Number:		**Date Received:**	N/A
Matrix:	WATER	**Date Extracted:**	11/21/2007
		Date Analyzed:	11/29/2007

Laboratory Control Sample Summary
Total Metals

Sample Name:	Lab Control Sample	**Units:**	ug/L
Lab Code:	LCS6-1121	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	True Value	Results	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Arsenic	EPA 3020A	6020	50.0	48.8	98	80 - 120	
Barium	EPA 3020A	6020	50.0	50.9	102	80 - 120	
Cadmium	EPA 3020A	6020	50.0	49.1	98	80 - 120	
Chromium	EPA 3020A	6020	50.0	51.0	102	80 - 120	
Copper	EPA 3020A	6020	50.0	49.4	99	80 - 120	
Lead	EPA 3020A	6020	50.0	50.5	101	80 - 120	
Manganese	EPA 3020A	6020	50.0	50.1	100	80 - 120	
Mercury	METHOD	7470A	5.00	4.73	95	80 - 120	
Selenium	EPA 3020A	6020	50.0	47.2	94	80 - 120	
Silver	EPA 3020A	6020	50.0	55.5	111	80 - 120	
Zinc	EPA 3020A	6020	100	105.0	105	80 - 120	

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client:	Premo, Inc.	**Service Request:**	J0705505
Project Name:	FORMER IP LOW GROUND LANDFILL	**Date Collected:**	11/14/2007
Project Number:		**Date Received:**	11/15/2007
Matrix:	WATER	**Date Extracted:**	11/20/2007
		Date Analyzed:	11/28/2007

Matrix Spike/Matrix Spike Duplicate Summary
Total Metals

Sample Name:	LG-1	**Units:**	mg/L
Lab Code:	J0705505-002 J0705505-002S	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	MRL	Spike Level MS	Spike Level DMS	Sample Result	Spike Result MS	Spike Result DMS	Percent Recovery MS	Percent Recovery DMS	RPD	% Rec Acceptance Limits	Result Notes
Iron	EPA 3010	6010B	0.25	2.00	2.00	56.20	54.70	56.60	NC	NC	3	75 - 125	

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client:	Premo, Inc.	**Service Request:**	J0705505
Project Name:	FORMER IP LOW GROUND LANDFILL	**Date Collected:**	N/A
Project Number:		**Date Received:**	N/A
Matrix:	WATER	**Date Extracted:**	11/20/2007
		Date Analyzed:	11/27/2007

Laboratory Control Sample Summary
Total Metals

Sample Name:	Lab Control Sample	**Units:**	mg/L
Lab Code:	LCS5-1120	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	True Value	Results	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Iron	EPA 3010A	6010B	2.00	2.06	103	80 - 120	
Iron	EPA 3010A	6010B	2.00	2.09	104	80 - 120	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client :	Premo, Inc.	**Service Request :**	J0705505
Project Name :	FORMER IP LOW GROUND LANDFILL	**Date Collected :**	11/14/07
Project Number :	NA	**Date Received :**	11/15/07
Sample Matrix :	WATER	**Date Extracted :**	NA
		Date Analyzed :	11/16/07

Duplicate Summary
Inorganic Parameters

Sample Name : LG-7
Lab Code : J0705505-001DUP
Basis : NA
Test Notes :

Analyte	Units	Analysis Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Chemical Oxygen Demand	mg/L (ppm)	410.2	5	23	23	23	<1	

Report By:TKissinger

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client :	Premo, Inc.	**Service Request :**	J0705505
Project Name :	FORMER IP LOW GROUND LANDFILL	**Date Collected :**	11/14/07
Project Number :	NA	**Date Received :**	11/15/07
Sample Matrix :	WATER	**Date Extracted :**	NA
		Date Analyzed :	11/16/07

Matrix Spike Summary
Inorganic Parameters

Sample Name : LG-7
Lab Code : J0705505-001MS
Basis : NA
Test Notes :

Analyte	Units	Analysis Method	MRL	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Chemical Oxygen Demand	mg/L (ppm)	410.2	5	50	23	72.7	99	85-115	

Report By:TKissinger

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : Premo, Inc.
Project Name : FORMER IP LOW GROUND LANDFILL
Project Number : NA
Sample Matrix : WATER

Service Request : J0705505
Date Collected : 11/14/07
Date Received : 11/15/07
Date Extracted : NA
Date Analyzed : 11/19/07

Duplicate Summary
Inorganic Parameters

Sample Name : LG-6
Lab Code : J0705505-006DUP

Basis : NA

Test Notes :

Analyte	Units	Analysis Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	20	2000	2000	2000	<1	

Report By:TKissinger

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client :	Premo, Inc.	**Service Request :**	J0705505
Project Name :	FORMER IP LOW GROUND LANDFILL	**Date Collected :**	NA
Project Number :	NA	**Date Received :**	NA
Sample Matrix :	WATER	**Date Extracted :**	NA
		Date Analyzed :	11/15-29/07

Laboratory Control Sample Summary
Inorganic Parameters

Sample Name : Laboratory Control Sample
Lab Code : J0705505-LCS
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Biochemical Oxygen Demand (BOD)	mg/L (ppm)	405.1	198	196	99	85-115	
Carbon, Total Organic	mg/L (ppm)	415.1	50	50.6	101	90-110	
Chemical Oxygen Demand	mg/L (ppm)	410.2	85.8	82.0	96	85-115	
Chloride	mg/L (ppm)	300.0	10	9.84	98	90-110	
Chloride	mg/L (ppm)	300.0	250	241	96	90-110	
Corrosivity	pH UNITS	9040B	7.00	7.03	100	90-110	
Fluoride	mg/L (ppm)	300.0	10	9.50	95	90-110	
Nitrate as Nitrogen	mg/L (ppm)	353.2	0.125	0.116	93	85-115	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	300	314	105	85-115	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	300	311	104	85-115	
Sulfate	mg/L (ppm)	300.0	250	241	96	90-110	

Report By:TKissinger

Columbia Analytical Services, Inc.
Cooler Receipt and Preservation Form

Client: URS Service Request # J0705505

Project: Former IP Lowground Landfill

Cooler received on 11-15-07 and opened on 11-15-07 by DMC

COURIER: CAS UPS FEDEX DHL CLIENT Tracking # 8565 0824 2870

1	Were custody seals on outside of cooler?	Yes	No	N/A
2	Were seals intact, signed and dated?	Yes	No	N/A
3	Were custody papers properly filled out?	Yes	No	N/A
4	Temperature of cooler(s) upon receipt (Should be 4 +/- 2 degrees C)	0.6		
5	Correct Temperature?	Yes	No	N/A
6	Were Ice or Ice Packs present	Yes	No	N/A
7	Did all bottles arrive in good condition (unbroken, etc....)?	Yes	No	N/A
8	Were all bottle labels complete (sample ID, preservation, etc....)?	Yes	No	N/A
9	Did all bottle labels and tags agree with custody papers?	Yes	No	N/A
10	Were the correct bottles used for the tests indicated?	Yes	No	N/A
11	Were all of the preserved bottles received with the appropriate preservative?	Yes	No	N/A
	HNO3 pH<2 H2SO4 pH<2 ZnAc2/NaOH pH>9 NaOH pH>12 HCl pH<2			
	Preservative additions noted below			
12	Were all samples received within analysis holding times?	Yes	No	N/A
13	Were VOA vials checked for absence of air bubbles? If present, note below	Yes	No	N/A
14	Where did the bottles originate?	CAS	Client	

Sample ID	Reagent	Manuf. Lot # or CAS Chem ID	ml added	Inititials

Additional comments and/or explanation of all discrepancies noted above:

Client approval to run samples if discrepancies noted: Date:

SR #: J 0705505 Date: 11-15-07 Initials: DMR

Note that pH is checked and meets the required pH criterion listed in the column heading unless otherwise noted on cooler receipt form.

	Bottle Code																													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
	40mL	40mL	40mL	40mL	125mL	125mL	125mL	125mL	250mL	250mL	250mL	250mL	250mL	250mL	250mL	500mL	500mL	500mL	1L	1L	1L	1L	1L	2oz	4oz	8oz	16oz	5g	100mL	Misc.
Container	G	G	G	G	P	P	P	P	P	P	P	P	P	G	G	P	P	P	P	P	G	G	G	G	G	G	G	ENC	P	Misc.
Pres.		HCl	Sodium Thiosulfate	H2SO4		HCl	H2SO4	HNO3		H2SO4	HNO3	ZnAcetate NaOH	NaOH		HNO3		H2SO4	HNO3		HNO3		HCl	H2SO4						Sodium Thiosulfate	
Req. pH	N/A	<2	N/A	<2	N/A	<2	<2	<2	N/A	<2	<2	>9	>12	N/A	<2	N/A	<2	<2	N/A	<2	N/A	<2	<2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sample #	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-				-	-
-001						1	1	1								1							1							
-002																														
-003																														
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-036																														
-037																														
-038																														
-039																														
-040																														

Columbia Analytical Services INC.
An Employee - Owned Company
www.caslab.com

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

8540 Baycenter Rd. • Jacksonville, FL 32256 • (904) 739-2277 • 800-695-7222 x06 • FAX (904) 739-2011

PAGE 1 OF 1

SR # J0705505

CAS Contact [redacted]

Project Name: FORMER JP LOOGROUND LANDFILL	Project Number:
Project Manager: ERNIE POLITZER	Email Address: epolitzer@premiercorp-usa.com
Company/Address: Premier Environmental Services, Inc 1880 West Oak Pkwy, BLDG 100, Suite 106 MARIETTA, GA 30062	
Phone #: 770-973-2100	FAX#: 770-973-7395
Sampler's Signature:	Sampler's Printed Name: PAUL FARRIS URSCORP

ANALYSIS REQUESTED (Include Method Number and Co[redacted])

PRESERVATIVE: 1 2 3 0 3

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	TOC	Metals	COD	Boron, Cl, TDS, pH, NO3+F	TOX	REMARKS/ ALTERNATE DESCRIPTION
LG-7		11/14/07	1025	GW	5	1	1	1	1	1	
LG-1		11/14/07	1140	GW	5	1	1	1	1	1	
LG-3		11/14/07	1240	GW	5	1	1	1	1	1	
LG-5		11/14/07	1345	GW	5	1	1	1	1	1	
BLANK		11/14/07	1400	GW	5	1	1	1	1	1	
LG-6		11/14/07	1455	GW	5	1	1	1	1	1	

Preservative Key:
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS

See QAPP ☐

TURNAROUND REQUIREMENTS
___ RUSH (SURCHARGES APPLY)
✓ STANDARD
REQUESTED FAX DATE
REQUESTED REPORT DATE

REPORT REQUIREMENTS
___ I. Results Only CONTACT ERNIE P.
___ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
___ III. Results + QC and Calibration Summaries
___ IV. Data Validation Report with Raw Data
___ V. Speicalized Forms / Custom Report
Edata ___ Yes ___ No

INVOICE INFORMATION
PO#
BILL TO:

SAMPLE RECEIPT: CONDITION/COOLER TEMP: _____ CUSTODY SEALS: Y N

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature	Signature	Signature	Signature	Signature	Signature
Printed Name: PAUL FARRIS	Printed Name: fedex	Printed Name: fedex	Printed Name: Matthew Roleman	Printed Name	Printed Name
Firm: URS Corp	Firm	Firm	Firm: CAS	Firm	Firm
Date/Time: 11/14/07 1830	Date/Time	Date/Time	Date/Time: 11-15-07 9:30	Date/Time	Date/Time

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

JSCOC-08/28/06

Columbia Analytical Services inc.
An Employee-Owned Company

Columbia Analytical Services
8540 Baycenter Road
Jacksonville, FL 32256
Tel 904-739-2277
Fax 904-739-2011

Appendix A

Subcontracted Analytical Results

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

2960 Foster Creighton Road Nashville, TN 37204 * 800-765-0980 * Fax 615-726-3404

December 03, 2007

Client: Columbia Analytical Services (9477)
8540 Baycenter Road
Jacksonville, FL 32256

Attn: Mandy Sullivan

Work Order: NQK2005
Project Name: Columbia Analytical Services
Project Number: J0705505
Date Received: 11/16/07

SAMPLE IDENTIFICATION	LAB NUMBER	COLLECTION DATE AND TIME
LG-7	NQK2005-01	11/14/07 10:25
LG-1	NQK2005-02	11/14/07 11:40
LG-3	NQK2005-03	11/14/07 12:40
LG-5	NQK2005-04	11/14/07 13:45
Blank	NQK2005-05	11/14/07 14:00
LG-6	NQK2005-06	11/14/07 14:55

Samples were received into laboratory at a temperature of 0.60 °C.

An executed copy of the chain of custody, the project quality control data, and the sample receipt form are also included as an addendum to this report. If you have any questions relating to this analytical report, please contact your Laboratory Project Manager. Any opinions, if expressed, are outside the scope of the Laboratory's accreditation.

Results are reported on a wet weight basis unless otherwise noted

The reported results were obtained in compliance with 2003 NELAC standards unless otherwise noted.

These results relate only to the items tested

Estimated uncertainty is available upon request.

Florida Certification Number: E87358

This report has been electronically signed.

Approved By:

Roxanne L. Connor

TestAmerica - Nashville, TN
Roxanne Connor
Program Manager - Conventional Accounts

Client: Columbia Analytical Services (9477)
8540 Baycenter Road
Jacksonville, FL 32256
Attn: Mandy Sullivan

Work Order: NQK2005
Project: Columbia Analytical Services
Project Number: J0705505

Sampled: 11/14/07
Received: 11/16/07

LABORATORY REPORT
Sample ID: LG-7 - Lab Number: NQK2005-01 - Matrix: Water

CAS #	Analyte	Result	Q	Units	PQL	Dil Factor	Analyzed Date/Time	By	Method	Batch
General Chemistry Parameters										
TOX	**Total Organic Halides**	**0.0445**		mg/L	0.0100	1	11/23/07 13:38	CCW	SW846 9020B	7114286

LABORATORY REPORT
Sample ID: LG-1 - Lab Number: NQK2005-02 - Matrix: Water

CAS #	Analyte	Result	Q	Units	PQL	Dil Factor	Analyzed Date/Time	By	Method	Batch
General Chemistry Parameters										
TOX	**Total Organic Halides**	**0.0215**		mg/L	0.0100	1	11/23/07 13:38	CCW	SW846 9020B	7114286

LABORATORY REPORT
Sample ID: LG-3 - Lab Number: NQK2005-03 - Matrix: Water

CAS #	Analyte	Result	Q	Units	PQL	Dil Factor	Analyzed Date/Time	By	Method	Batch
General Chemistry Parameters										
TOX	**Total Organic Halides**	**0.0706**		mg/L	0.0100	1	11/23/07 13:38	CCW	SW846 9020B	7114286

LABORATORY REPORT
Sample ID: LG-5 - Lab Number: NQK2005-04 - Matrix: Water

CAS #	Analyte	Result	Q	Units	PQL	Dil Factor	Analyzed Date/Time	By	Method	Batch
General Chemistry Parameters										
TOX	Total Organic Halides	0.0100	U	mg/L	0.0100	1	11/23/07 13:38	CCW	SW846 9020B	7114286

LABORATORY REPORT
Sample ID: Blank - Lab Number: NQK2005-05 - Matrix: Water

CAS #	Analyte	Result	Q	Units	PQL	Dil Factor	Analyzed Date/Time	By	Method	Batch
General Chemistry Parameters										
TOX	Total Organic Halides	0.0100	U	mg/L	0.0100	1	11/23/07 13:38	CCW	SW846 9020B	7114286

LABORATORY REPORT
Sample ID: LG-6 - Lab Number: NQK2005-06 - Matrix: Water

CAS #	Analyte	Result	Q	Units	PQL	Dil Factor	Analyzed Date/Time	By	Method	Batch
General Chemistry Parameters										
TOX	**Total Organic Halides**	**0.0175**		mg/L	0.0100	1	11/23/07 13:38	CCW	SW846 9020B	7114286

Client: Columbia Analytical Services (9477)
8540 Baycenter Road
Jacksonville, FL 32256
Attn: Mandy Sullivan

Work Order: NQK2005
Project: Columbia Analytical Services
Project Number: J0705505

Sampled: 11/14/07
Received: 11/16/07

PROJECT QUALITY CONTROL DATA
Blank

Analyte	Blank Value	Q	Units	Q.C. Batch	Lab Number
General Chemistry Parameters					
Total Organic Halides	0.0100		mg/L	7114286	7114286-BLK1

PROJECT QUALITY CONTROL DATA
Duplicate

Analyte	Orig. Val.	Duplicate	Q	Units	RPD	RPD Limit	Q.C. Batch	Sample Duplicated
General Chemistry Parameters								
Total Organic Halides	0.0445	0.0438		mg/L	2	50	7114286	NQK2005-01

PROJECT QUALITY CONTROL DATA
LCS

Analyte	Known Val.	Analyzed Val	Q	Units	% Rec.	Target Range	Q.C. Batch
General Chemistry Parameters							
Total Organic Halides	0.250	0.240		mg/L	96	90 - 130	7114286

PROJECT QUALITY CONTROL DATA
LCS Dup

Analyte	Orig. Val.	Duplicate	Q	Units	Spike Conc	% Rec.	RPD	RPD Limit	Q.C. Batch	Sample Duplicated
General Chemistry Parameters										
Total Organic Halides		0.271		mg/L	0.250	108	12	50	7114286	

PROJECT QUALITY CONTROL DATA
Matrix Spike

Analyte	Orig. Val.	MS Val	Q	Units	Spike Conc	% Rec.	Target Range	Batch	Sample Spiked
General Chemistry Parameters									
Total Organic Halides	0.0253	0.153		mg/L	0.100	128	74 - 131	7114286	NQK1129-04

PROJECT QUALITY CONTROL DATA
Matrix Spike Dup

Analyte	Orig. Val.	Duplicate	Q	Units	Spike Conc	% Rec.	RPD	RPD Limit	Q.C. Batch	Sample Duplicated
General Chemistry Parameters										
Total Organic Halides	0.0253	0.149		mg/L	0.100	124	3	50	7114286	NQK1129-04

Client: Columbia Analytical Services (9477)
8540 Baycenter Road
Jacksonville, FL 32256
Attn: Mandy Sullivan

Work Order: NQK2005
Project: Columbia Analytical Services
Project Number: J0705505

Sampled: 11/14/07
Received: 11/16/07

CERTIFICATION SUMMARY

TestAmerica - Nashville, TN

Method	Matrix	A2LA	AIHA	Nelac	Florida
SW846 9020B	Water		N/A	X	X

DATA QUALIFIERS AND DEFINITIONS

ADDITIONAL COMMENTS

When insufficient sample volume is received for Matrix Spike and Matrix Spike Duplicate, Laboratory Control Spike and Laboratory Control Spike Duplicate data is used for batch QC.

TestAmerica

Nashville, TN

COOLER RECEIPT

NQK2005

Cooler Received/Opened On_11/16/07 @ 09:25

1. Tracking #1ZX5W0980414189 (last 4 digits, FedEx) 2377

Courier: ___UPS IR Gun ID___A01124

2. Temperature of rep. sample or temp blank when opened: 0.6 Degrees Celsius

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES (NO)...NA

4. Were custody seals on outside of cooler? (YES)...NO...NA

If yes, how many and where: 1- FRONT

5. Were the seals intact, signed, and dated correctly? (YES)...NO...NA

6. Were custody papers inside cooler? (YES)...NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial) BC

7. Were custody seals on containers: YES (NO) and Intact YES...NO...(NA)

Were these signed and dated correctly? YES...NO...(NA)

8. Packing mat'l used? (Bubblewrap) Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: (Ice) Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? (YES)...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? (YES)...NO...NA

12. Did all container labels and tags agree with custody papers? (YES)...NO...NA

13a. Were VOA vials received? YES...(NO)...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...(NA)

14. Was there a Trip Blank in this cooler? YES...NO...(NA) If multiple coolers, sequence #_____

I certify that I unloaded the cooler and answered questions 7-14 (intial) AAV

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? (YES)...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used (YES)...NO...NA

If preservation in-house was needed, record standard ID of preservative used here_____

16. Was residual chlorine present? YES...(NO)...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) ✓

17. Were custody papers properly filled out (ink, signed, etc)? (YES)...NO...NA

18. Did you sign the custody papers in the appropriate place? (YES)...NO...NA

19. Were correct containers used for the analysis requested? (YES)...NO...NA

20. Was sufficient amount of sample sent in each container? (YES)...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) ✓

I certify that I attached a label with the unique LIMS number to each container (intial) T

21. Were there Non-Conformance issues at login? YES...(NO) Was a PIPE generated? YES...NO...#_____

Columbia Analytical Services Inc. Chain of Custody

6540 Baycenter Rd. • Jacksonville, FL 32256 • 904-739-2277 • FAX 904-739-2011

CAS Contact: Tom Kissinger

Project Number: J0705505
Project Manager: Tom Kissinger

NQK2005
12/02/07 23:59

Lab Code	Sample ID	# of Cont.	Matrix	Sample Date	Sample Time	Lab ID Test America	TOX 9020B	
J0705505-001	LG-7	1	Water	11/14/07	1025	~~H2M Lab~~	X	-1
J0705505-002	LG-1	1	Water	11/14/07	1140	~~H2M Lab~~	X	-2
J0705505-003	LG-3	1	Water	11/14/07	1240	~~H2M Lab~~	X	-3
J0705505-004	LG-5	1	Water	11/14/07	1345	~~H2M Lab~~	X	-4
J0705505-005	BLANK	1	Water	11/14/07	1400	~~H2M Lab~~	X	-5
J0705505-006	LG-6	1	Water	11/14/07	1455	~~H2M Lab~~	X	-6

Test Comments
TOX - 9020B J0705505-001,2,3,4,5,6 Send to Test America Nashville TN

Special Instructions/Comments

PLEASE SEND RESULTS TO MANDY SULLIVAN

37

Turnaround Requirements
____ RUSH (Surcharges Apply)
PLEASE CIRCLE WORK DAYS
1 2 3 4 5
____ STANDARD
~~Requested FAX Date:~~ ____
Requested Report Date: 12/02/07

Report Requirements
____ I. Results Only
____ II. Results + QC Summaries
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
PQL/MDL/J Y
EDD Y

Invoice Information
PO# J0705505
Bill to

Relinquished By: [signature] 11-15-07 Received By: [signature] 11-16-07/09:25 Airbill Number:

Memorandum

Date:	February 22, 2008
To:	Pat Kelley
From:	Mary Ann Brookshire
Subject:	Quality Assurance Review
Project:	International Paper - Roanoke Rapids, NC - Low Ground Landfill
Sampling Dates:	November 14, 2007
Project Number:	300018

1.0 Introduction

This memorandum presents the cursory validation of the water sample analyses listed in Table 1. The analyses were performed by Columbia Analytical Services, Inc. with the exception of the total organic halide analysis that was subcontracted to Test America. The criteria used to qualify data are from the *Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (USEPA 2004), the analytical methods, or the professional judgment of the validation chemist. The following laboratory deliverables were reviewed during the validation process:

- Chain-of-custody (COC) documentation to assess holding times and verify report completeness
- Laboratory quality control (QC) sample results, including method blanks, laboratory control samples (LCSs), matrix spike/matrix spike duplicates (MS/MSDs), and laboratory duplicates
- Analytical results to verify reporting limits

Table 1—Sample Data Reviewed

Sample ID	Laboratory ID	Metals[a]	Wet Chem[b]
LG-7	J0705505-001	X	X
LG-1	J0705505-002	X	X
LG-3	J0705505-003	X	X
LG-5	J0705505-004	X	X
BLANK	J0705505-005	X	X
LG-6	J0705505-006	X	X

[a] Total metals by methods 6010B, 6020, and 7470A (USPEPA 1996)

[b] BOD by method 405.1, TOC by method 415.1, COD by method 410.2, pH by method 9040B, TDS by 160.1, TOX by method 9020B and nitrate, sulfate, fluoride and chloride by method 300 (SM1992, USEPA 1983, USEPA 1996, and USEPA 1999b)

2.0 Data Validation

2.1 Custody, Preservation, and Completeness

Sample custody was maintained from sample collection to receipt at the laboratory. The reports are complete and contain results for the samples and tests requested on the COC forms. The samples were received intact and were properly preserved.

2.2 Metals Analyses

The samples noted on Table 1 were analyzed for total metals by methods 6010B, 6020 and 7470A.

2.2.1 Holding Times

The samples were analyzed within the required holding times.

2.2.2 Blank Analyses

2.2.2.1 Method Blanks

Method blanks were analyzed at the required frequency. Target analytes were not detected at concentrations above the method reporting limits in the method blank. Chromium was detected below the MRL in the method blank at a concentration of 0.43 ug/L. Functional Guidelines prescribes two qualification schemes for inorganic blank contamination; (1) associated sample concentrations below the MRL are qualified as undetected at the MRL, (2) associated sample concentrations greater than the MRL are qualified based on professional judgment. Associated sample results were qualified as shown in the summary of qualified data table at the end of this memo.

2.2.2.2 Field Blanks

One equipment rinsate blank was collected with the samples. The following analytes were detected in the rinsate blank after method blank qualification.

- Barium at a concentration of 1.4 ug/L.
- Manganese at a concentration of 5.1 ug/L.
- Zinc at a concentration of 2.1 ug/L.

Functional Guidelines prescribes two qualification schemes for inorganic blank contamination; (1) associated sample concentrations below the MRL are qualified as undetected at the MRL, (2) associated sample concentrations greater than the MRL are qualified based on professional judgment. Associated sample results were qualified as shown in the summary of qualified data table at the end of this memo.

2.2.3 Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analyses

MS/MSDs were analyzed as required. The recoveries and RPDs are within the QC limits with the exception of iron. The iron spike results are not usable as the sample concentration is greater than four times the spike value.

2.2.4 Laboratory Control Sample

LCS samples were analyzed as required. The percent recovery values are within the laboratory QC limits.

2.2.5 Laboratory Reporting Limits

The reporting limits are consistent with method reporting limits (MRL). The B qualifiers for the results less than the MRL but above the method detection limit are changed to J qualifiers for consistency with the project database.

2.2.6 Field Duplicates

Field duplicate samples were not collected with these samples. Data qualification is not required.

2.2.7 Overall Assessment of Data Usability

The usability of the data is based on the EPA guidance documents noted previously. Based upon the information presented here, the data are acceptable with qualification.

2.3 General Chemistry Analyses

The samples were analyzed for biochemical oxygen demand (BOD), total organic carbon (TOC), chemical oxygen demand (COD), pH, total dissolved solids (TDS), nitrate, fluoride, sulfate, chloride, and total organic halides (TOX).

2.3.1 Holding Times

The samples were analyzed within the required holding times.

2.3.2 Blank Analyses

2.3.2.1 Method Blanks

Method blanks were analyzed at the required frequency. Target analytes were not detected in the method blanks with the following exception.

- TOX was detected in the method blank at a concentration of 0.010 mg/L.

Functional Guidelines prescribes two qualification schemes for inorganic blank contamination; (1) associated sample concentrations below the MRL are qualified as undetected at the MRL, (2) associated sample concentrations greater than the MRL are qualified based on professional judgment. Associated sample results were qualified as shown in the summary of qualified data table at the end of this memo.

2.3.2.2 Field Blanks

One equipment rinsate blank was collected with the samples. Target analytes were not detected in the rinsate blank with the following exceptions.

- BOD was detected in the rinsate blank at a concentration of 2.2 mg/L.
- TOC was detected in the rinsate blank at a concentration of 1.0 mg/L.
- COD was detected in the rinsate blank at a concentration of 12 mg/L.

Functional Guidelines prescribes two qualification schemes for inorganic blank contamination; (1) associated sample concentrations below the MRL are qualified as undetected at the MRL, (2) associated sample concentrations greater than the MRL are qualified based on professional judgment. Associated sample results were qualified as shown in the summary of qualified data table at the end of this memo.

2.3.3 Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analyses

MS/MSDs were analyzed as required for the TOX analyses. The recoveries and RPDs are within the QC limits. MS samples were analyzed for COD. The recovery is within the QC

limits. Batch MS/MSD samples were analyzed with the other parameters; however, the data was not reported.

2.3.4 Matrix Duplicate Analyses

Matrix Duplicates (MD) were analyzed as required for the COD and pH. The RPDs are within the QC limits. Batch MS/MSD samples were analyzed with the other parameters; however, the data was not reported.

2.3.5 Laboratory Control Sample

LCS samples were analyzed as required for the BOD, TOC, COD, TDS, pH, nitrate, sulfate, chloride, and fluoride analyses. The percent recovery values are within the laboratory QC limits.

2.3.6 Laboratory Reporting Limits

The reporting limits are consistent with method reporting limits (MRL).

2.3.7 Field Duplicates

Field duplicate samples were not collected with these samples. Data qualification is not required.

2.3.8 Overall Assessment of Data Usability

The usability of the data is based on the EPA guidance documents noted previously. Based upon the information presented here, the data are acceptable with qualification.

3.0 Data Qualifier Definitions

The following data validation qualifiers were used in the review of this data set. These qualifiers are from the Contract Laboratory Program National Functional Guidelines for Organic Data Review (USEPA 1999).

U — The analyte was analyzed for but not detected above the reported sample quantitation limit.

J — The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

UJ — The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

N — The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification".

NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

R The sample results are rejected due to serious deficiencies in the ability to analyze the samples and meet quality control criteria. The presence or absence of the analyte cannot be verified.

4.0 References

SM 1992. Standard Methods for the Examination of Water and Waste, 18th Edition. 1992.

USEPA. 1983. Methods for Chemical Analysis of Water and Waste EPA/600/4-79/020. United States Environmental Protection Agency. Office of Research and Development. March 1983.

USEPA. 1996. Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (SW-846) Third Edition, Updates I, II, IIA, IIB, and III. United States Environmental Protection Agency. Office of Solid Waste. December 1996.

USEPA. 1999a. Contract Laboratory Program National Functional Guidelines for Organic Data Review. U.S. Environmental Protection Agency Office of Emergency and Remedial Response. EPA540/R-99/008. October 1999.

USEPA. 1999b. Method 1664, Revision A: N-Hexane Extractable Meterial (HEM; Oil and Grease) and Silica Gel Treated N-Hexane Extractable Material by Extraction and Gravimetry EPA-821-R-98-002. United States Environmental Protection Agency. Office of Water. February 1999.

USEPA. 2004. Contract Laboratory Program National Functional Guidelines for Inorganic Data Review. U.S. Environmental Protection Agency Office of Superfund Remediation and Technology Innovation. EPA 540-R-04-004. October 2004.

5.0 SUMMARY OF QUALIFIED DATA

Sample ID	Analyte	Qualifier	Reason for Qualification
LG-7	Chromium	U at MRL	Method blank contamination, result <MRL
LG-1	Chromium	U at MRL	Method blank contamination, result <MRL
LG-3	Chromium	U at MRL	Method blank contamination, result <MRL
LG-5	Chromium	U at MRL	Method blank contamination, result <MRL
BLANK	Chromium	U at MRL	Method blank contamination, result <MRL
LG-7	Zinc	U at MRL	Rinsate blank contamination, result <MRL
LG-1	Zinc	U at MRL	Rinsate blank contamination, result <MRL
LG-3	Zinc	U at MRL	Rinsate blank contamination, result <MRL
LG-5	Zinc	U at MRL	Rinsate blank contamination, result <MRL
LG-6	Zinc	U at MRL	Rinsate blank contamination, result <MRL
LG-1	BOD	U at MRL	Method blank contamination, result <MRL
LG-5	BOD	U at MRL	Method blank contamination, result <MRL
LG-6	BOD	U at MRL	Method blank contamination, result <MRL
LG-7	TOX	U	Method blank contamination, result >MRL
LG-1	TOX	U	Method blank contamination, result >MRL
LG-6	TOX	U	Method blank contamination, result >MRL

MRL – method reporting limit

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client:	Premo, Inc.		
Project Name:	FORMER IP LOW GROUND LANDFILL	**Service Request:**	J0705505
Project Number:	NA	**Date Collected:**	11/14/2007
Matrix:	WATER	**Date Received:**	11/15/2007

Total Metals
Iron

Prep Method:	EPA 3010A	**Units:**	mg/L
Analysis Method:	6010B	**Basis:**	N/A
Test Notes:			

Sample Name:	Lab Code:	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
LG-7	J0705505-001	0.05	0.02	1.0	11/20/2007	11/21/2007	0.35	
LG-1	J0705505-002	0.25	0.09	5.0	11/20/2007	11/28/2007	56	
LG-3	J0705505-003	0.05	0.02	1.0	11/20/2007	11/27/2007	0.25	
LG-5	J0705505-004	0.05	0.02	1.0	11/20/2007	11/27/2007	7.0	
BLANK	J0705505-005	0.05	0.02	1.0	11/20/2007	11/27/2007	U	
LG-6	J0705505-006	0.05	0.02	1.0	11/20/2007	11/27/2007	0.55	
Method Blank	MB2-1120	0.05	0.02	1.0	11/20/2007	11/21/2007	U	
Method Blank	MB5-1120	0.05	0.02	1.0	11/20/2007	11/27/2007	U	

MB
2/22/08

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: Premo, Inc.
Project Name: FORMER IP LOW GROUND LANDFILL
Project Number: NA
Matrix: WATER

Service Request: J0705505
Date Collected: 11/14/2007
Date Received: 11/15/2007

Total Metals

Sample Name: LG-1
Lab Code: J0705505-002

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Arsenic	EPA 3020A	6020	0.50	0.28	1.0	11/21/2007	11/29/2007	2.3	
Barium	EPA 3020A	6020	2.0	0.14	1.0	11/21/2007	11/29/2007	410	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/21/2007	11/29/2007	U	
Chromium	EPA 3020A	6020	2.0	0.12	1.0	11/21/2007	11/29/2007	~~1.5~~ 2.0 U	~~B~~
Copper	EPA 3020A	6020	2.0	0.29	1.0	11/21/2007	11/29/2007	0.85	~~B~~ J
Lead	EPA 3020A	6020	1.0	0.30	1.0	11/21/2007	11/29/2007	0.46	~~B~~ J
Manganese	EPA 3020A	6020	20	1.3	20.0	11/21/2007	11/29/2007	5180	
Mercury	METHOD	7470A	0.50	0.14	1.0	11/19/2007	11/19/2007	U	
Selenium	EPA 3020A	6020	2.0	0.79	1.0	11/21/2007	11/29/2007	U	
Silver	EPA 3020A	6020	0.50	0.039	1.0	11/21/2007	11/29/2007	U	
Zinc	EPA 3020A	6020	10	1.7	1.0	11/21/2007	11/29/2007	~~3.3~~ 10 U	~~B~~

MB
2/22/08

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: Premo, Inc.
Project Name: FORMER IP LOW GROUND LANDFILL
Project Number: NA
Matrix: WATER

Service Request: J0705505
Date Collected: 11/14/2007
Date Received: 11/15/2007

Total Metals

Sample Name: LG-3
Lab Code: J0705505-003

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Arsenic	EPA 3020A	6020	0.50	0.28	1.0	11/21/2007	11/29/2007	U	
Barium	EPA 3020A	6020	2.0	0.14	1.0	11/21/2007	11/29/2007	97	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/21/2007	11/29/2007	U	
Chromium	EPA 3020A	6020	2.0	0.12	1.0	11/21/2007	11/29/2007	2.0 U	B
Copper	EPA 3020A	6020	2.0	0.29	1.0	11/21/2007	11/29/2007	0.43	BJ
Lead	EPA 3020A	6020	1.0	0.30	1.0	11/21/2007	11/29/2007	U	
Manganese	EPA 3020A	6020	20	1.3	20.0	11/21/2007	11/29/2007	4700	
Mercury	METHOD	7470A	0.50	0.14	1.0	11/19/2007	11/19/2007	U	
Selenium	EPA 3020A	6020	2.0	0.79	1.0	11/21/2007	11/29/2007	U	
Silver	EPA 3020A	6020	0.50	0.039	1.0	11/21/2007	11/29/2007	U	
Zinc	EPA 3020A	6020	10	1.7	1.0	11/21/2007	11/29/2007	10 U	B

MB
2/25/08

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: Premo, Inc.
Project Name: FORMER IP LOW GROUND LANDFILL
Project Number: NA
Matrix: WATER

Service Request: J0705505
Date Collected: 11/14/2007
Date Received: 11/15/2007

Total Metals

Sample Name: LG-5
Lab Code: J0705505-004

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Arsenic	EPA 3020A	6020	0.50	0.28	1.0	11/21/2007	11/29/2007	0.43	~~B~~ J
Barium	EPA 3020A	6020	2.0	0.14	1.0	11/21/2007	11/29/2007	233	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/21/2007	11/29/2007	U	
Chromium	EPA 3020A	6020	2.0	0.12	1.0	11/21/2007	11/29/2007	~~1.5~~ 2.0 U	~~B~~
Copper	EPA 3020A	6020	2.0	0.29	1.0	11/21/2007	11/29/2007	0.90	~~B~~ J
Lead	EPA 3020A	6020	1.0	0.30	1.0	11/21/2007	11/29/2007	1.0	
Manganese	EPA 3020A	6020	20	1.3	20.0	11/21/2007	11/29/2007	19300	
Mercury	METHOD	7470A	0.50	0.14	1.0	11/19/2007	11/19/2007	U	
Selenium	EPA 3020A	6020	2.0	0.79	1.0	11/21/2007	11/29/2007	U	
Silver	EPA 3020A	6020	0.50	0.039	1.0	11/21/2007	11/29/2007	U	
Zinc	EPA 3020A	6020	10	1.7	1.0	11/21/2007	11/29/2007	~~7.5~~ 10 U	~~B~~

MB
2/28/08

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: Premo, Inc.
Project Name: FORMER IP LOW GROUND LANDFILL
Project Number: NA
Matrix: WATER

Service Request: J0705505
Date Collected: 11/14/2007
Date Received: 11/15/2007

Total Metals

Sample Name: BLANK
Lab Code: J0705505-005

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Arsenic	EPA 3020A	6020	0.50	0.28	1.0	11/21/2007	11/29/2007	U	
Barium	EPA 3020A	6020	2.0	0.14	1.0	11/21/2007	11/29/2007	1.4	B J
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/21/2007	11/29/2007	U	
Chromium	EPA 3020A	6020	2.0	0.12	1.0	11/21/2007	11/29/2007	12.0	B U
Copper	EPA 3020A	6020	2.0	0.29	1.0	11/21/2007	11/29/2007	U	
Lead	EPA 3020A	6020	1.0	0.30	1.0	11/21/2007	11/29/2007	U	
Manganese	EPA 3020A	6020	1.0	0.07	1.0	11/21/2007	11/29/2007	5.1	
Mercury	METHOD	7470A	0.50	0.14	1.0	11/19/2007	11/19/2007	U	
Selenium	EPA 3020A	6020	2.0	0.79	1.0	11/21/2007	11/29/2007	U	
Silver	EPA 3020A	6020	0.50	0.039	1.0	11/21/2007	11/29/2007	U	
Zinc	EPA 3020A	6020	10	1.7	1.0	11/21/2007	11/29/2007	2.1	B J

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2/22/08

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client:	Premo, Inc.	**Service Request:**	J0705505
Project Name:	FORMER IP LOW GROUND LANDFILL	**Date Collected:**	11/14/2007
Project Number:	NA	**Date Received:**	11/15/2007
Matrix:	WATER		

Total Metals

Sample Name:	LG-6	**Units:**	ug/L
Lab Code:	J0705505-006	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Arsenic	EPA 3020A	6020	0.50	0.28	1.0	11/21/2007	11/29/2007	U	
Barium	EPA 3020A	6020	2.0	0.14	1.0	11/21/2007	11/29/2007	870	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/21/2007	11/29/2007	U	
Chromium	EPA 3020A	6020	2.0	0.12	1.0	11/21/2007	11/29/2007	4.4	
Copper	EPA 3020A	6020	2.0	0.29	1.0	11/21/2007	11/29/2007	0.59	~~B~~ J
Lead	EPA 3020A	6020	1.0	0.30	1.0	11/21/2007	11/29/2007	U	
Manganese	EPA 3020A	6020	20	1.3	20.0	11/21/2007	11/29/2007	1670	
Mercury	METHOD	7470A	0.50	0.14	1.0	11/19/2007	11/19/2007	U	
Selenium	EPA 3020A	6020	2.0	0.79	1.0	11/21/2007	11/29/2007	U	
Silver	EPA 3020A	6020	0.50	0.039	1.0	11/21/2007	11/29/2007	U	
Zinc	EPA 3020A	6020	10	1.7	1.0	11/21/2007	11/29/2007	~~3.1~~ 10 U	~~B~~

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2/22/08

Analytical Report

Client : Premo, Inc.
Project Name : FORMER IP LOW GROUND LANDFILL
Project Number : NA
Sample Matrix : WATER

Service Request : J0705505
Date Collected : 11/14/07
Date Received : 11/15/07

Inorganic Parameters

Sample Name : LG-7
Lab Code : J0705505-001
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Biochemical Oxygen Demand (BOD)	mg/L (ppm)	405.1	4	0.86	1	11/16/07 16:00	U	
Carbon, Total Organic	mg/L (ppm)	415.1	1	0.41	1	11/29/07 10:00	6.6	
Chemical Oxygen Demand	mg/L (ppm)	410.2	5	1.5	1	11/16/07 21:30	23	
Chloride	mg/L (ppm)	300.0	0.2	0.068	1	11/29/07 21:17	22	
Fluoride	mg/L (ppm)	300.0	0.2	0.047	1	11/29/07 21:17	1.6	
Nitrate as Nitrogen	mg/L (ppm)	353.2	0.2	0.03	10	11/15/07 18:25	1.9	
pH	pH UNITS	9040B	-	-	1	11/15/07 22:00	6.6	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.7	1	11/19/07 09:30	1200	
Sulfate	mg/L (ppm)	300.0	0.4	0.1	1	11/29/07 21:17	180	

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2/22/08

Report By:TKissinger

Analytical Report

Client : Premo, Inc.
Project Name : FORMER IP LOW GROUND LANDFILL
Project Number : NA
Sample Matrix : WATER

Service Request : J0705505
Date Collected : 11/14/07
Date Received : 11/15/07

Inorganic Parameters

Sample Name : LG-1
Lab Code : J0705505-002
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Biochemical Oxygen Demand (BOD)	mg/L (ppm)	405.1	4	0.86	1	11/16/07 16:00	~~4~~ 4.0 U	✗
Carbon, Total Organic	mg/L (ppm)	415.1	1	0.41	1	11/29/07 10:00	6.9	
Chemical Oxygen Demand	mg/L (ppm)	410.2	5	1.5	1	11/16/07 21:30	42	
Chloride	mg/L (ppm)	300.0	0.2	0.068	1	11/29/07 21:17	22	
Fluoride	mg/L (ppm)	300.0	0.2	0.047	1	11/29/07 21:17	1.5	
Nitrate as Nitrogen	mg/L (ppm)	353.2	0.02	0.003	1	11/15/07 18:25	U	
pH	pH UNITS	9040B	-	-	1	11/15/07 22:00	6.5	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.7	1	11/19/07 09:30	770	
Sulfate	mg/L (ppm)	300.0	0.4	0.1	1	11/29/07 21:17	16	

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2/22/08

Report By:TKissinger

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : Premo, Inc.
Project Name : FORMER IP LOW GROUND LANDFILL
Project Number : NA
Sample Matrix : WATER

Service Request : J0705505
Date Collected : 11/14/07
Date Received : 11/15/07

Inorganic Parameters

Sample Name : LG-3
Lab Code : J0705505-003

Basis : NA

Test Notes :

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Biochemical Oxygen Demand (BOD)	mg/L (ppm)	405.1	4	0.86	1	11/16/07 16:00	U	
Carbon, Total Organic	mg/L (ppm)	415.1	1	0.41	1	11/29/07 10:00	12	
Chemical Oxygen Demand	mg/L (ppm)	410.2	5	1.5	1	11/16/07 21:30	44	
Chloride	mg/L (ppm)	300.0	0.2	0.068	1	11/29/07 21:17	51	
Fluoride	mg/L (ppm)	300.0	0.2	0.047	1	11/29/07 21:17	1.6	
Nitrate as Nitrogen	mg/L (ppm)	353.2	0.2	0.03	10	11/15/07 18:25	4.5	
pH	pH UNITS	9040B	-	-	1	11/15/07 22:00	6.4	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.7	1	11/19/07 09:30	1100	
Sulfate	mg/L (ppm)	300.0	0.4	0.1	1	11/29/07 21:17	85	

MB
12/22/07

Report By:TKissinger

Analytical Report

Client : Premo, Inc.
Project Name : FORMER IP LOW GROUND LANDFILL
Project Number : NA
Sample Matrix : WATER

Service Request : J0705505
Date Collected : 11/14/07
Date Received : 11/15/07

Inorganic Parameters

Sample Name : LG-5
Lab Code : J0705505-004

Basis : NA

Test Notes :

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Biochemical Oxygen Demand (BOD)	mg/L (ppm)	405.1	4	0.86	1	11/16/07 16:00	~~1.6~~ 4.0 U	J
Carbon, Total Organic	mg/L (ppm)	415.1	1	0.41	1	11/29/07 10:00	5.7	
Chemical Oxygen Demand	mg/L (ppm)	410.2	5	1.5	1	11/16/07 21:30	33	
Chloride	mg/L (ppm)	300.0	0.2	0.068	1	11/29/07 21:17	2.4	
Fluoride	mg/L (ppm)	300.0	0.2	0.047	1	11/29/07 21:17	0.87	
Nitrate as Nitrogen	mg/L (ppm)	353.2	0.02	0.003	1	11/15/07 18:25	U	
pH	pH UNITS	9040B	--	-	1	11/15/07 22:00	6.4	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.7	1	11/19/07 09:30	590	
Sulfate	mg/L (ppm)	300.0	0.4	0.1	1	11/29/07 21:17	130	

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3/22/08

Report By:TKissinger

Analytical Report

Client : Premo, Inc.
Project Name : FORMER IP LOW GROUND LANDFILL
Project Number : NA
Sample Matrix : WATER

Service Request : J0705505
Date Collected : 11/14/07
Date Received : 11/15/07

Inorganic Parameters

Sample Name : BLANK
Lab Code : J0705505-005
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Biochemical Oxygen Demand (BOD)	mg/L (ppm)	405.1	4	0.86	1	11/16/07 16:00	2.2	J
Carbon, Total Organic	mg/L (ppm)	415.1	1	0.41	1	11/29/07 10:00	1.0	
Chemical Oxygen Demand	mg/L (ppm)	410.2	5	1.5	1	11/16/07 21:30	12	
Chloride	mg/L (ppm)	300.0	0.2	0.068	1	11/29/07 21:17	U	
Fluoride	mg/L (ppm)	300.0	0.2	0.047	1	11/29/07 21:17	U	
Nitrate as Nitrogen	mg/L (ppm)	353.2	0.02	0.003	1	11/15/07 18:25	U	
pH	pH UNITS	9040B	-	-	1	11/15/07 22:00	6.5	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.7	1	11/19/07 16:30	U	
Sulfate	mg/L (ppm)	300.0	0.4	0.1	1	11/29/07 21:17	U	

MB
12/29/07

Report By:TKissinger

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : Premo, Inc.
Project Name : FORMER IP LOW GROUND LANDFILL
Project Number : NA
Sample Matrix : WATER

Service Request : J0705505
Date Collected : 11/14/07
Date Received : 11/15/07

Inorganic Parameters

Sample Name : LG-6
Lab Code : J0705505-006

Basis : NA

Test Notes :

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Biochemical Oxygen Demand (BOD)	mg/L (ppm)	405.1	4	0.86	1	11/16/07 16:00	~~2.74.~~ U	~~J~~
Carbon, Total Organic	mg/L (ppm)	415.1	1	0.41	1	11/29/07 10:00	14	
Chemical Oxygen Demand	mg/L (ppm)	410.2	5	1.5	1	11/16/07 21:30	50	
Chloride	mg/L (ppm)	300.0	0.2	0.068	1	11/29/07 21:17	26	
Fluoride	mg/L (ppm)	300.0	0.2	0.047	1	11/29/07 21:17	1.6	
Nitrate as Nitrogen	mg/L (ppm)	353.2	0.02	0.003	1	11/15/07 18:25	0.0060	J
pH	pH UNITS	9040B	-	-	1	11/15/07 22:00	7.0	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	20	9.4	2	11/19/07 16:30	2000	
Sulfate	mg/L (ppm)	300.0	0.4	0.1	1	11/29/07 21:17	87	

MB
2/22/08

Report By:TKissinger

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: Premo, Inc.
Project Name: FORMER IP LOW GROUND LANDFILL
Project Number: NA
Matrix: WATER

Service Request: J0705505
Date Collected: 11/14/2007
Date Received: 11/15/2007

Total Metals

Sample Name: LG-7
Lab Code: J0705505-001

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Arsenic	EPA 3020A	6020	0.50	0.28	1.0	11/21/2007	11/29/2007	0.37	~~B~~ J
Barium	EPA 3020A	6020	2.0	0.14	1.0	11/21/2007	11/29/2007	130	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/21/2007	11/29/2007	U	
Chromium	EPA 3020A	6020	2.0	0.12	1.0	11/21/2007	11/29/2007	~~1.4~~ 2.0U	~~B~~
Copper	EPA 3020A	6020	2.0	0.29	1.0	11/21/2007	11/29/2007	0.89	~~B~~ J
Lead	EPA 3020A	6020	1.0	0.30	1.0	11/21/2007	11/29/2007	U	
Manganese	EPA 3020A	6020	5.0	0.33	5.0	11/21/2007	11/29/2007	1570	
Mercury	METHOD	7470A	0.50	0.14	1.0	11/19/2007	11/19/2007	U	
Selenium	EPA 3020A	6020	2.0	0.79	1.0	11/21/2007	11/29/2007	2.4	
Silver	EPA 3020A	6020	0.50	0.039	1.0	11/21/2007	11/29/2007	U	
Zinc	EPA 3020A	6020	10	1.7	1.0	11/21/2007	11/29/2007	~~3.9~~ 10 U	~~B~~

mb
2/22/08

2960 Foster Creighton Road Nashville, TN 37204 * 800-765-0980 * Fax 615-726-3404

Client: Columbia Analytical Services (9477)
8540 Baycenter Road
Jacksonville, FL 32256
Attn: Mandy Sullivan

Work Order: NQK2005
Project: Columbia Analytical Services
Project Number: J0705505

Sampled: 11/14/07
Received: 11/16/07

LABORATORY REPORT
Sample ID: LG-7 - Lab Number: NQK2005-01 - Matrix: Water

CAS #	Analyte	Result	Q	Units	PQL	Dil Factor	Analyzed Date/Time	By	Method	Batch
General Chemistry Parameters										
TOX	**Total Organic Halides**	**0.0445**	U	mg/L	0.0100	1	11/23/07 13:38	CCW	SW846 9020B	7114286

LABORATORY REPORT
Sample ID: LG-1 - Lab Number: NQK2005-02 - Matrix: Water

CAS #	Analyte	Result	Q	Units	PQL	Dil Factor	Analyzed Date/Time	By	Method	Batch
General Chemistry Parameters										
TOX	**Total Organic Halides**	**0.0215**	U	mg/L	0.0100	1	11/23/07 13:38	CCW	SW846 9020B	7114286

LABORATORY REPORT
Sample ID: LG-3 - Lab Number: NQK2005-03 - Matrix: Water

CAS #	Analyte	Result	Q	Units	PQL	Dil Factor	Analyzed Date/Time	By	Method	Batch
General Chemistry Parameters										
TOX	**Total Organic Halides**	**0.0706**		mg/L	0.0100	1	11/23/07 13:38	CCW	SW846 9020B	7114286

LABORATORY REPORT
Sample ID: LG-5 - Lab Number: NQK2005-04 - Matrix: Water

CAS #	Analyte	Result	Q	Units	PQL	Dil Factor	Analyzed Date/Time	By	Method	Batch
General Chemistry Parameters										
TOX	Total Organic Halides	0.0100	U	mg/L	0.0100	1	11/23/07 13:38	CCW	SW846 9020B	7114286

LABORATORY REPORT
Sample ID: Blank - Lab Number: NQK2005-05 - Matrix: Water

CAS #	Analyte	Result	Q	Units	PQL	Dil Factor	Analyzed Date/Time	By	Method	Batch
General Chemistry Parameters										
TOX	Total Organic Halides	0.0100	U	mg/L	0.0100	1	11/23/07 13:38	CCW	SW846 9020B	7114286

LABORATORY REPORT
Sample ID: LG-6 - Lab Number: NQK2005-06 - Matrix: Water

CAS #	Analyte	Result	Q	Units	PQL	Dil Factor	Analyzed Date/Time	By	Method	Batch
General Chemistry Parameters										
TOX	**Total Organic Halides**	**0.0175**	U	mg/L	0.0100	1	11/23/07 13:38	CCW	SW846 9020B	7114286

MB
2/22/08